



Miraca

—  
Integrated Report  
2019

Year ended March 31, 2019



## Bridging People to Healthcare

Our pursuit is to champion public health through products and services empowered by leading-edge technology. Often without recognition, we support and inspire patients, medical professionals, and society as a whole with daily medical solutions.

We envision a future that others can't, through insights derived from data. Our unique perspective helps us provide innovative solutions that contribute to a thriving tomorrow.

We believe it's our duty to contribute to a society where anyone can live a long and fruitful life, as we discover new possibilities for human health.

We've set revolution into motion, seeking meaningful answers to build trust and bridge humanity and healthcare services.

Even as we evolve, our promise remains steadfast as we strive to meet tomorrow's ever-changing and diverse medical needs.



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### Editorial Policy

This integrated report contains a simple overview of both financial and non-financial data for shareholders, investors and other stakeholders to increase their understanding about the Miraca Group's management policy, business strategy, and management foundation. This integrated report was designed in a manner to highlight the Group's various initiatives for addressing changes in management climate and market needs, with an eye toward the integrated reporting framework of the International Integrated Reporting Council (IIRC).

**Reporting period:** Fiscal year ended March 31, 2019 (fiscal 2018: April 1, 2018 to March 31, 2019)

**Boundary:** Miraca Holdings Inc. as well as its subsidiaries and affiliates  
**Publication:** November 2019

### Precaution concerning Future Predictions

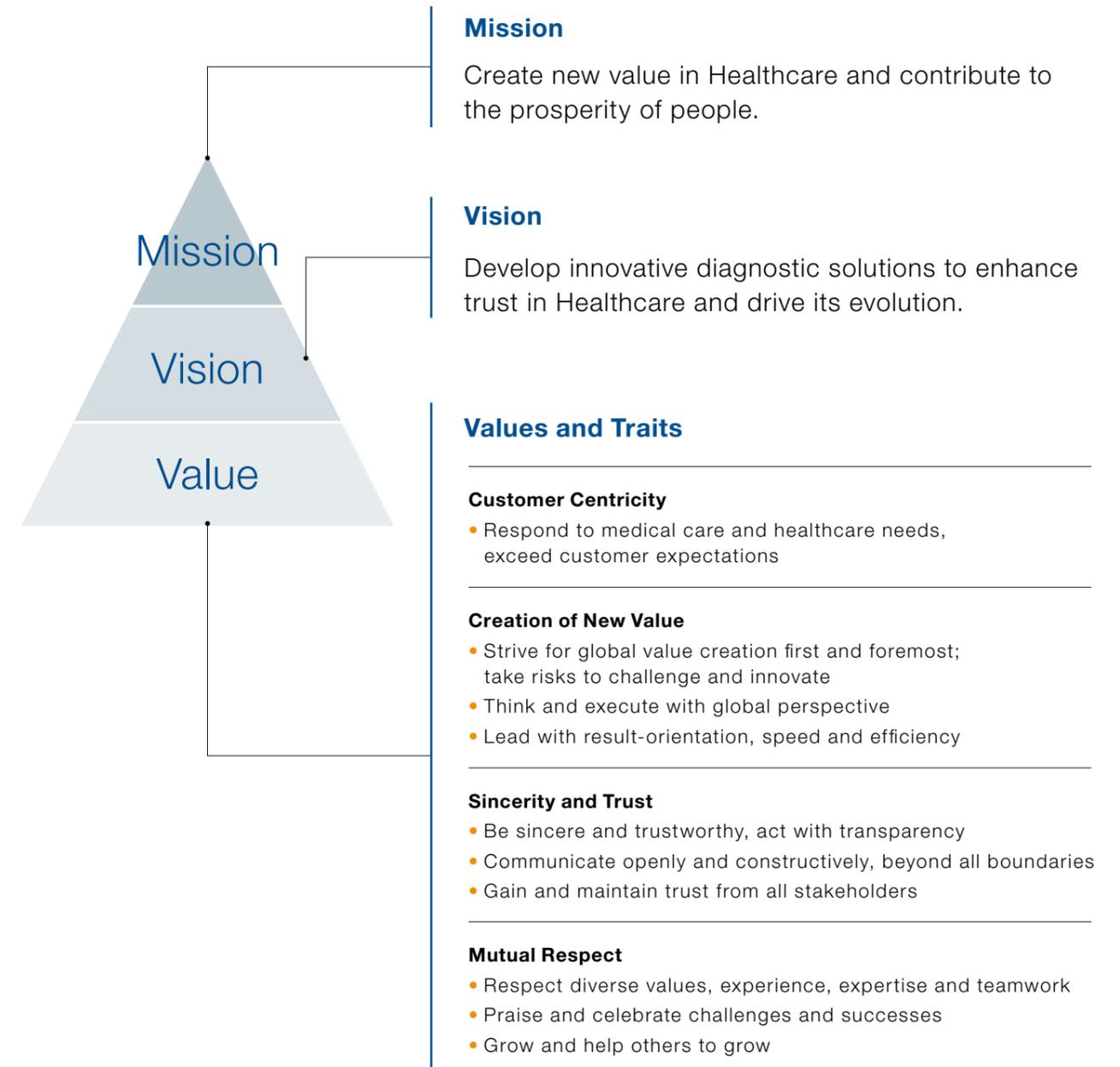
The predicted performance figures found within this integrated report are based on determinations made by our management team obtained from the information available at this point in time. They were prepared on the basis of numerous assumptions and opinions obtained based on information that includes enormous risks and uncertainty. Please note that our actual performance results may differ from these performance predictions due to a variety of different factors. Factors that could foreseeably impact our performance include, but are not limited to, a deterioration of the economic climate, exchange rate fluctuations, changes to legal or governance systems, delays in bringing new products to market, pressure resulting from the product strategies of our competitors, decreased selling power for our existing products, and the discontinuation of sales.

### Precaution concerning Monetary Amounts

The monetary amounts appearing in this integrated report are rounded when presented in billions and truncated when presented in millions. In addition, percentages are rounded off to the nearest percentage point.



## Group Management Philosophy





## Picking Up the Pace of Transformation to Achieve Our Vision

With the completion of fiscal 2018, I am pleased to present Miraca Holdings' first integrated report. Our intention is to provide an overview of the Miraca Group's businesses, our direction going forward, and our medium- to long-term plans to increase corporate value. We also hope to invite dialogue with our many stakeholders to bolster management's ability to navigate the future.

Operating within the healthcare field we are acutely aware of our responsibility for human life and wellbeing. The Group's business portfolio of high quality products and services is unique in Japan's medical industry. One of these is clinical testing, which plays a critical role in determining diagnosis and treatment. Miraca also develops and manufactures test reagents and testing instruments, while performing services such as sterilization support at the front lines of medical practice. We are committed to continuously supplying consistently exceptional products and services under a vast variety of circumstances.

Faced with an ever-changing social and business environment, we must continue to transform and provide greater value. To that end, we positioned fiscal 2017 as the relaunch and initiated fundamental reforms to realize significant sustainable growth. "Business as usual" is no longer an option. It is imperative that we accelerate our transformation to reach our next goalposts.

The Group fulfills its corporate social responsibility by integrating SDGs and ESG initiatives into business activities aligned with our management philosophy. We signed the United Nations Global Compact in March 2019 to collaborate in building an international framework for sustainable growth. We will also focus on strengthening our non-financial assets with a view toward sustainably increasing corporate value.

The Miraca Group is dedicated to supporting human wellness and the health of society. While staying true to our unchanging mission, we are transforming ourselves to enhance competitiveness for tomorrow.

Shigekazu Takeuchi

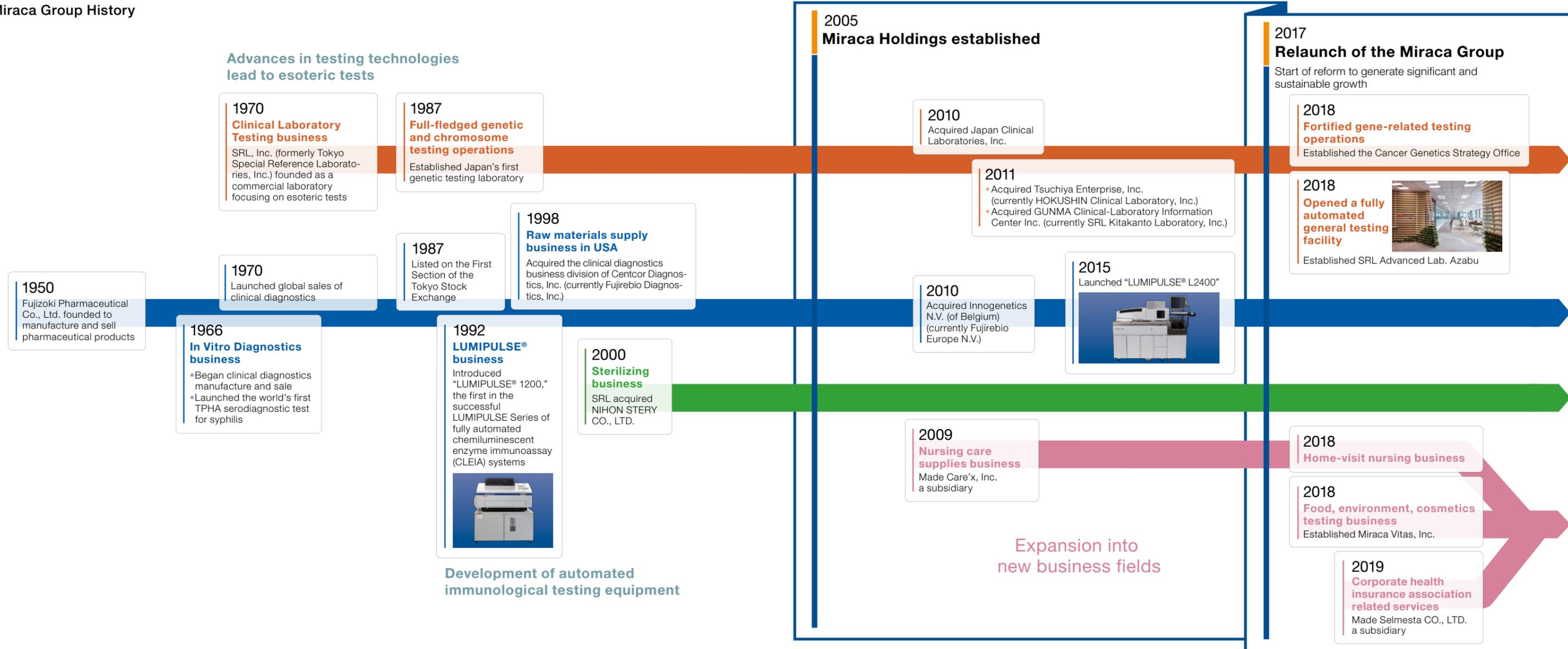
Director, President and Group CEO  
Miraca Holdings Inc.

# The Evolution of the Miraca Group

## Working with medical professionals to address the needs of society and expand our business

1945-1950 1960 1970 1980 1990 2000 2005 2015

### Miraca Group History



### Social Issues

- Welfare protection
- Unemployment support
- Environmental health measures

- Housing and living environment maintenance
- Pollution and traffic accident response
- Occupational health

- Aging
- Sharply rising medical costs as disease structures change

- Control of medical costs, improvement of medical care efficiency (optimize medical facilities, effective use and distribution of medical field personnel)
- Incorporation of medical advances (genome field, regenerative medicine), etc.

- Response to new viruses (SARS, Ebola, etc.)
- Poverty and public health in emerging countries

### Developments in Japanese Society

High economic growth period

Aging society

Declining birthrate and aging society

Post-War to 1950: Average life expectancy: 50s

1947-1949: First baby boom

1970s: Second baby boom

2000s: Average life expectancy: 80s

1945-1950 1960 1970 1980 1990 2000 2005 2015

# The Miraca Group Today

## Providing value to people through our products and services for medical institutions

### Our Primary Businesses



#### Clinical Laboratory Testing

- Collection of specimens from across the country, testing in our laboratories, and reporting of results
- Contracted operations at in-hospital laboratories



#### In Vitro Diagnostics

- Clinical diagnostics and testing instruments provided to medical institutions in Japan and worldwide
- OEM supply of clinical diagnostics
- Raw material supply to global producers of clinical diagnostics



#### Sterilization and Related Services

- Sterilization services for medical equipment
- Support services for surgical operations



#### Emerging New Business and others

- Food, environment, cosmetics testing
- Home-visiting, welfare
- Contract research organization (CRO)
- Self-medication, service through corporate health insurance associations



#### Research & Development Functions

Miraca Research Institute G.K.

- Innovative analysis platforms
- Medical innovation base technology
- Medical information, bioinformatics, AI



Open innovation



### Value for People

- Medical checkups and on-site testing
- Early disease detection and treatment**
- Personalized treatment based on test results
- Personalized treatment**
- Gene-related testing
- Access to advanced medical care**

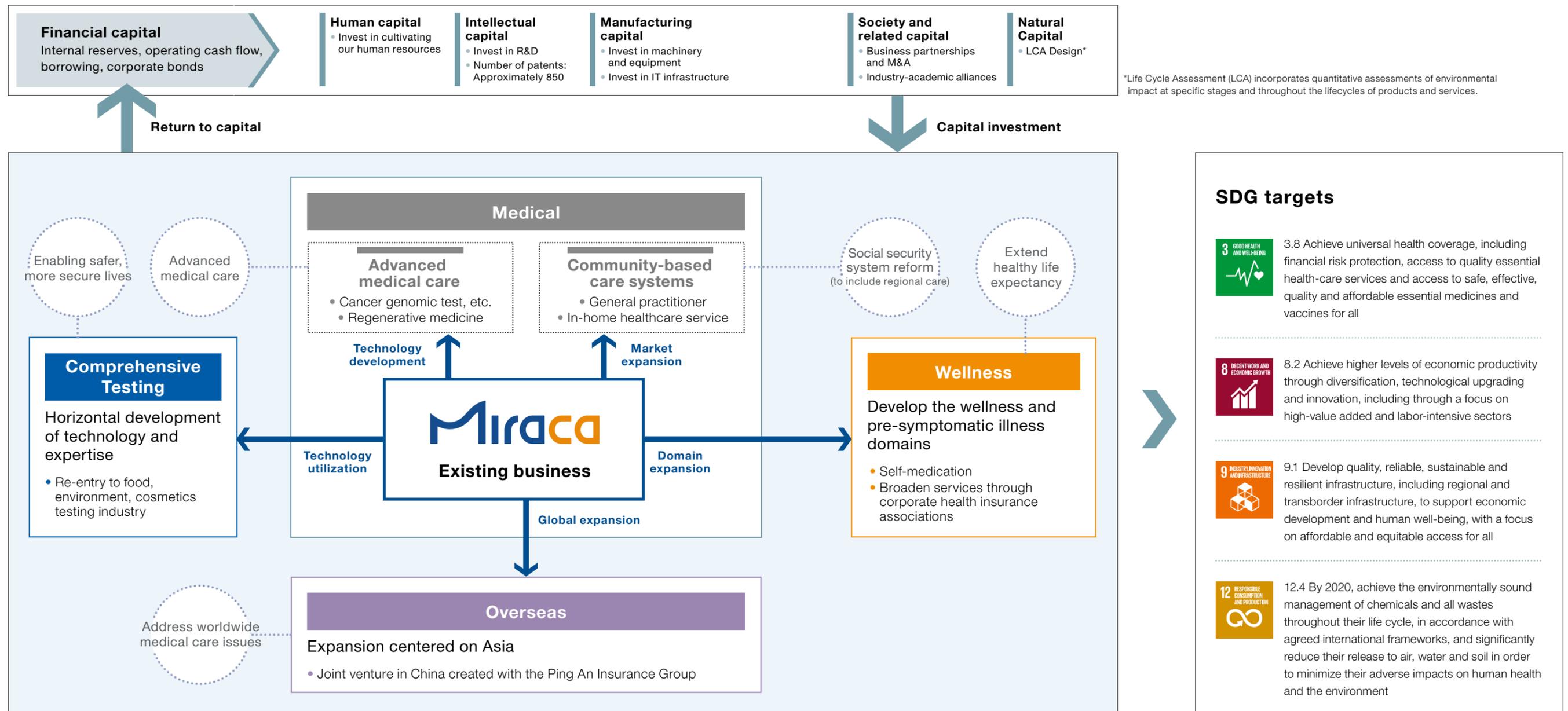
### Healthy, Flourishing Lives

- Testing reagents supplied to over 100 countries
- Early disease detection and treatment**
- High quality, low cost testing
- Companion diagnostics for more effective treatment and dosages
- Reduced medical care costs**
- Hospital operation support
- Maintaining and raising the quality of medical care**

### Value for Society

# The Miraca Group's Future

## Our long-term strategy is to fortify our capital and contribute to addressing social issues



## Growth Strategies

## Message from the Top

## Swift and sustainable growth strategy for strengthening current business areas and developing new domains

### Shigekazu Takeuchi

Director, President and Group CEO  
Miraca Holdings Inc.

### Medium-term Plan “Transform! 2020” is Making Headway

The Medium-term Plan “Transform! 2020” reflects my ambition to transform the group by strengthening our foundation for swift and sustainable growth. This plan will reach completion in the fourth quarter of the fiscal year ending March 2020 (fiscal 2019).

Over the past two fiscal years, the Miraca Group has implemented many changes, bolstering existing businesses while investing in infrastructure and business foundation. This is spurring not only improved financial performance, but also Group synergies, organizational and operational reform, and employee motivation.

Since I took office as president, I have also tackled two problematic management issues. We canceled the IT project for our Clinical Laboratory Testing (CLT) business and sold our pathological testing operation in the United States.

Meanwhile, we are fortifying our growth foundation through targeted investment and sweeping structural reforms in each of our business areas. I strongly believe

that we are now progressing in the right direction despite a slow start that put us behind our initial schedule. I am committed to delivering material results to shareholders by reshaping the Group in a new corporate image.

In the fiscal year ended March 31, 2019 (fiscal 2018), sales declined due to divestment of the U.S. CLT operation, Miraca Life Sciences, Inc. If we discount that impact, however, it becomes clear that sales soared to a record high. This rise was driven by new customer acquisition and higher testing volume, despite greater-than-expected drops in CLT prices and delayed execution of measures in each business. The fruits of our investments and initiatives became particularly clear in the second half of the fiscal year.

The decline in profit we ascribe in part to continuing growth-oriented upfront expenses in each business along with an increase in depreciation on capital investments to strengthen existing businesses. Facing this situation, we are pursuing ongoing investment in the growing China market and new customer acquisition across the board.

### Carrying Out Key Initiatives

Regarding our key initiative of strengthening existing businesses, the growth of our CLT business stands out. The appeal of our new satellite laboratories in the greater Tokyo area and our latest high-tech value-added services have brought us many new customers, particularly among Japan’s growing ranks of general practitioners.

Growth also benefited from new additions to our esoteric testing menu, such as genetic testing services, and the acquisition of in-hospital customers through Group synergies. Together, these have driven yearly sales increases. Sales began rising in the second half of fiscal 2018, and growth spurted to more than 6% year on year in the fourth quarter.

In our In Vitro Diagnostics (IVD) business, reagents sales are rising along with LUMIPULSE assay instrument deliveries in general, and of the large LUMIPULSE L2400

in particular. We also continue to expand in the OEM/raw materials (supply) business domains, as we solidify infrastructure to facilitate future sales growth.

Meanwhile, we began construction of New Central Laboratory which is vital for medium- to long-term Group growth. By building one of the world’s largest laboratories, we will have a framework to deliver the unrivaled value which customers desire in terms of cost and quality.

New possibilities are being born out of our other three key initiatives: R&D, strategic alliances, and global expansion. Basic research and open innovation, particularly at the Miraca Research Institute G.K. established in 2017, are already producing innovations with future growth potential. Overseas, our joint venture with Ping An Insurance (Group) Company of China, Ltd. is developing the Chinese CLT market while rapidly gaining ground in other projects.

### Medium-term Plan “Transform! 2020” (April 2017 to March 2020)

Build foundation for significant and sustainable growth



## Forward to the Future

Japan's aging population and declining birthrate will demand increased social security expenditures in the national budget. Since the Miraca Group is currently engaged in business mainly within Japan's social security systems, I saw a clear need to change our business structure.

While executing our growth plan over the past two years I realized we could also provide value beyond the boundaries of institutionalized medicine. I decided to further expand the Group's growth potential by strategically accessing and attracting this untapped market.

The key would be leveraging our existing competencies and expertise in laboratory testing. By extending the functionality of our clinical testing technology we will become a comprehensive laboratory testing company. This will let us address needs in wellness and pre-symptomatic illness areas. At the same time, we will expand our overseas presence to grow in Asian markets in general and China in particular.

To realize this growth, we rely on employee engagement which we have worked to enhance over the past two years. Across the Group, this has engendered new enthusiasm, nimble responsiveness to changes in the market environment, and confidence in



facing new challenges.

Going forward, we will leverage the Group's unique strengths to meet the needs of the times. United with our employees, we will strive to bolster our existing businesses while nurturing new businesses to heighten corporate value.

## CSR

In April 2019, we reviewed our CSR philosophy and affirmed our position of fulfilling our social responsibility through our business activities. To support this, I formed the Miraca Group CSR Committee, consisting mostly of Executive Officers, with myself as the chair.

The Group's businesses, particularly the CLT business which provides high-quality precision test results, plays an essential role in healthcare. We are committed to maintaining an uninterrupted supply of consistently excellent products and services, regardless of the circumstances.

The New Central Laboratory currently under construction is key to realizing this commitment. The building is designed to enhance efficiency, process optimization, and quality assurance. It is engineered for structural integrity and seismic isolation to maintain testing continuity in case of a major disaster.

In addition, the Group became a signatory to the United Nations Global Compact. This underlines our responsibility to meet fundamental responsibilities in four areas: human rights, labor, environment and anti-corruption. Going forward, we will continue to work toward creating sustainability and earning the trust of society by integrating SDGs into business activities.



The Miraca Group addresses four areas: human rights, labor, environment, and anti-corruption as stipulated in the UN Global Compact

## SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



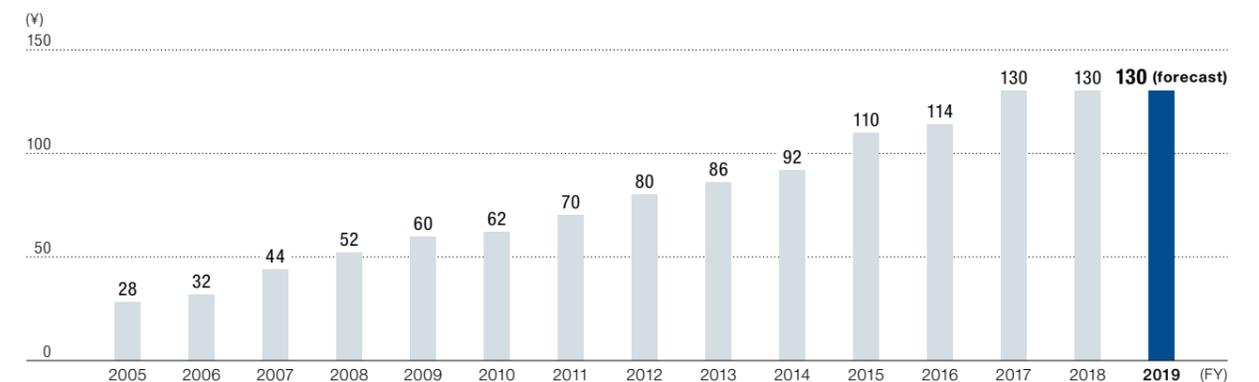
The Miraca Group helps achieve the SDGs stipulated by the UN (p.12 and p.24)

## Shareholder Returns

We are committed to consistent and stable dividends. For the duration of the current Medium-term Plan we are prioritizing growth-oriented investment, which necessitates temporarily lowering our profit forecast. Nevertheless, we plan to pay out an annual dividend of JPY 130 per share, the same as the last fiscal year. As called for by this Medium-term Plan, management is

implementing measures to fortify our growth foundation dedicated to realizing greater corporate value and shareholder returns ahead. Carrying out this plan will, in turn, support the next Medium-term Plan, intended to increase sales and profits to sustain growth in corporate value. In this way, we will continue to do all in our power to earn the support and win the guidance of our shareholders and other stakeholders.

## Annual Dividend Payment (¥/share)



## Message from the CFO



Enhancing corporate value by building on the momentum from our reforms and growth investment

### Naoki Kitamura

Director, Executive Officer and CFO  
Miraca Holdings Inc.

### My Objectives as CFO

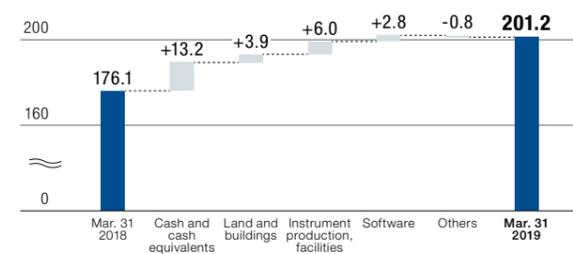
As the CFO of the Miraca Group, my primary responsibility is to establish sustained growth in corporate value. I consider myself to be the person responsible not only for managing our accounting and finances, but for engineering how we will raise our corporate value from a financial perspective. I must determine how to plant the seeds that

will enable a company to grow and which directions our businesses should take. Another key factor is how to manage our people, products, money, and information to make them successful. While arranging the financial support needed to fulfill the CEO vision, I will approach my duties from a comprehensive perspective, which includes maintaining the appropriate risk management structure.

### Consolidated Balance Sheet

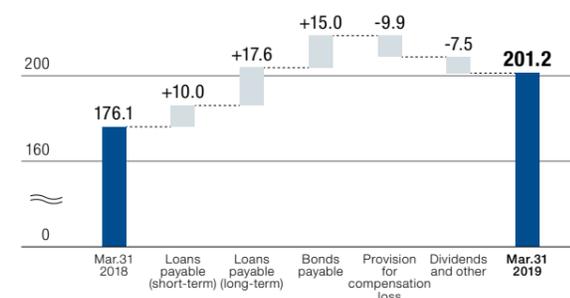
#### Net assets

(¥ billion)  
240



#### Liabilities and net assets

(¥ billion)  
240



### Financial Policy

In the first half of fiscal 2018, we completed our investment objectives to improve and update our equipment and facilities and have now pivoted to investing for growth. We are currently focusing on investing to grow the sales and streamline the operations of our existing businesses. Of particular note is that we have begun full-fledged investment in constructing the New Central Laboratory, which we aim to begin operating in spring 2021. Our investments in streamlining will include investment in IT, such as to incorporate AI and robotic process automation, that will not only make our operations more efficient but will also improve the quality of our products and services.

We procured funds for capital investment via loans, the issuance of straight bonds, and other methods in fiscal 2018. These resulted in a lower weighted average cost of capital (WACC). However, because we financed the land and construction for the New Central Laboratory through real estate loans rather than corporate finances, we still have significant borrowing capacity.

We will maintain strict financial discipline by considering our cash creation ability along with the ratio of net interest-bearing debt to EBITDA, while using the most appropriate methods to procure the funds needed to fulfill our growth investment objectives. Our policy remains to maintain a shareholders' equity ratio of 50%.

### Key Financial Indicators

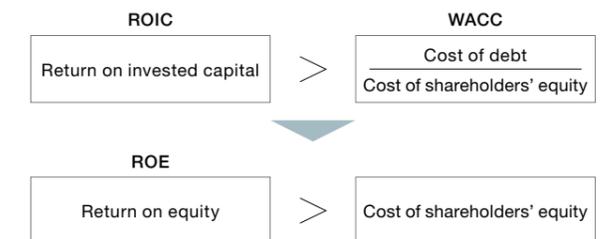
We fell short of our performance targets for fiscal 2018, the second year of our current Medium-term Plan. However, signs are appearing that our momentum is starting to build. Results in the CLT business fell short of the plan but picked up in the fourth quarter and were up by over 6% year on year for the quarter. We are investing and applying strategies to keep this momentum going in fiscal 2019.

In fiscal 2019, sales and profit of the IVD business will be impacted by the recently ended contract with Japanese Red Cross Society. To prevent falling into a balanced contraction, we will strategically invest in areas aimed to expand earnings and promote business growth by allocating personnel to growth fields.

We will also continue strengthening our existing businesses and begin actively cultivating new businesses to drive earnings growth in fiscal 2020 and beyond. In these endeavors, we will put top priority on the sales growth rate with a focus on improving profits on an EBITDA base. We are also focused on steadily recovering ROE back above 10% from just over 5% in fiscal 2018.

Along with the sales growth rate, we will also use ROIC as a guide for raising corporate value. We plan to increase the economic value added (EVA) spread by raising ROIC while lowering WACC. We achieved positive EVA in fiscal 2018 and are aiming to further enhance EVA to increase our corporate value.

### Indicators Used to Measure Growth in Corporate Value



### To Our Shareholders

Management views the slow progress toward fulfilling the targets in our Medium-term Plan with the utmost gravity. At the same time, I fully agree with our CEO's decision to prioritize reform and to focus our direction. To achieve the corporate reform targeted in our Medium-term Plan, we have been aggressively investing to strengthen our existing businesses and lay the groundwork for future growth. We have also made significant progress in changing the Group's overall mindset. I am confident that our efforts in each of these areas are starting to gain traction for the Group.

I aim to do my part to lead structural reform that will enable the Group to create a new dimension of value. I would like to ask for the continued understanding and support of our shareholders.

# Analysis of Financial Status and Business Performance

At our relaunch in fiscal 2017, the Miraca Group launched the Medium-term Plan “Transform! 2020” with various strategies aimed at generating significant and sustainable growth. In fiscal 2018, the Group procured capital to continue the previous year’s aggressive investing and spending to generate future growth and improved efficiency.

Our business performance bottomed out in the fourth quarter of fiscal 2017 and sales in particular started steadily growing in the second half of fiscal 2018. At the same time, profits declined year on year owing to rising depreciation expenses accompanying the capital investments and from our upfront investment for future growth.

## 1 Financial Status (Consolidated)

### Assets

The Group’s assets as of the end of fiscal 2018 (March 31, 2019) amounted to ¥201.2 billion, an increase of ¥25.2 billion from the end of fiscal 2017 (March 31, 2018).

Current assets increased by ¥14.3 billion year on year to ¥89.6 billion, owing mainly to an increase in cash and cash on hand in anticipation of investments for further business growth.

Non-current assets increased by ¥10.8 billion year on year to ¥111.5 billion on the balance of declines from

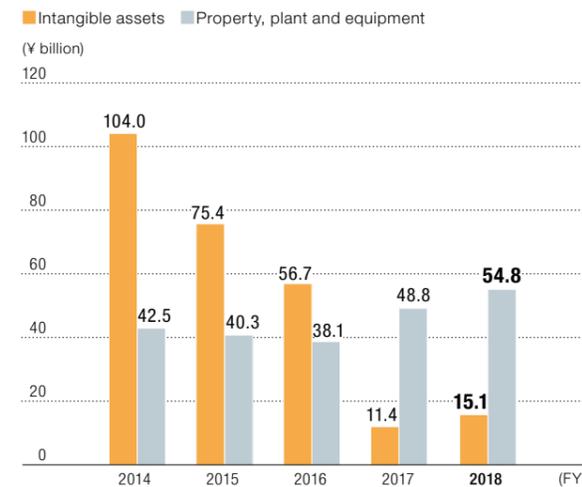
goodwill impairment associated with Miraca Life Sciences, Inc. (MLS), in fiscal 2015, the termination of an IT project in fiscal 2016, and the divestment of MLS in fiscal 2017, and increases from the aggressive capital investments in fiscal 2018 for future growth and to improve operating efficiency. As a result, compared to fiscal 2014, the amounts for intangible assets, such as goodwill, declined while property, plant and equipment, such as testing instruments, increased.

### Non-current Assets and Current Assets



Note: Due to the Partial Amendments to the Accounting Standard for Tax Effect Accounting, etc. adopted at the beginning of fiscal 2018, deferred tax assets previously reported under current assets are now reported as investments and other assets under fixed assets. Graph figures for the years prior to fiscal 2018 have been retroactively adjusted to reflect the change.

### Intangible Assets / Property, Plant and Equipment



### Liabilities

Liabilities increased by ¥25.4 billion to ¥88.3 billion in fiscal 2018 as a result of the several fund procurement activities conducted during the fiscal year. The Company procured funds through real estate financing for the ¥50.0 billion needed for the land and buildings for the New Central Laboratory and issued straight corporate bonds valued at ¥15.0 billion with the intention of using the funds for related guarantees and security deposits. The Company increased long-term loans by ¥17.6 billion and short-term loans by ¥10.0 billion to procure funds for investment to prepare a foundation for business growth and to foster new businesses aligned with the Medium-term Plan.

Regarding the investigation and lawsuit by the United States government, as per the contract concluded into at the time of divestment of MLS, the Company paid a civil settlement amount to the purchaser of MLS and recorded a decline in the provision for compensation loss of ¥9.9 billion from the previous fiscal year. The current ratio was 175.0%, and the fixed ratio was 98.7%.

### Net Assets and Liabilities



### Financial Discipline

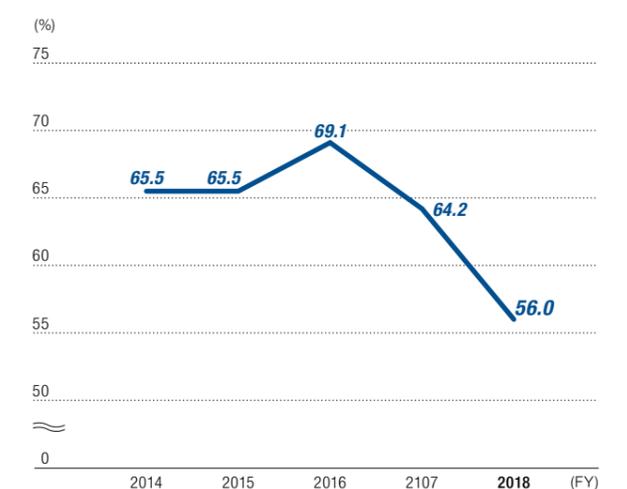
At the end of fiscal 2018 (March 31, 2019), the equity ratio was 56.0%, and the ratio of net interest-bearing debt (excluding lease obligations) to EBITDA was 0.55. We will

continue to use the equity ratio and net debt/EBITDA ratio as guidelines for financial decisions while seeking to maintain an equity ratio near 50%.

### Miraca Group Financial Standing (end of fiscal 2018)



### Equity Ratio

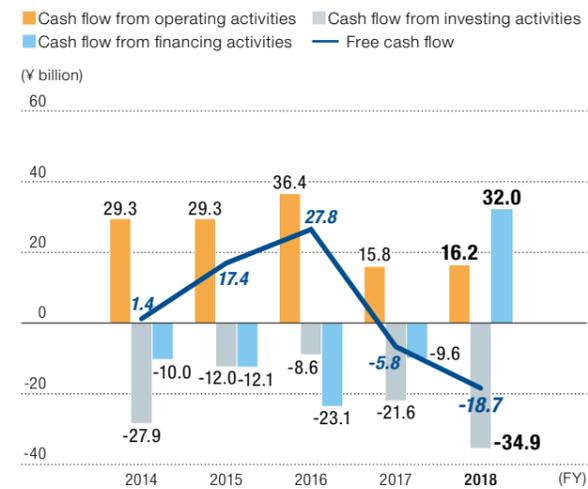


## 2 | Cash Flow

In fiscal 2018, cash flow from operating activities amounted to ¥16.2 billion. Net cash used in investing activities amounted to ¥34.9 billion, an increase of ¥13.3 billion from the previous fiscal year due to the acquisition of fixed assets, such as testing instruments, the acquisition of intangible fixed assets, including IT investments, and a portion of the guarantee and security deposit payments related to the real estate financing for the New Central Laboratory. As a result, free cash flow was negative ¥18.7 billion.

Cash flow from financing activities amounted to ¥32.0 billion from the issuance of corporate bonds of funds applied to the guarantee and security deposit payments related to the real estate financing for the New Central Laboratory and from short- and long-term loans primarily for capital investment.

### Cash Flows



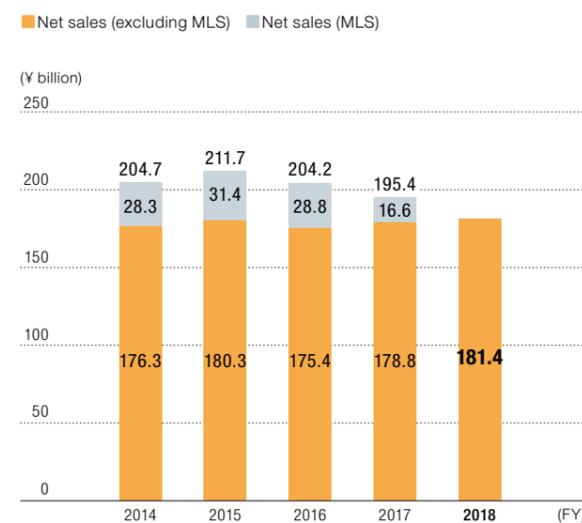
## 3 | Profit and Loss

Net sales amounted to ¥181.4 billion, a year on year decline of ¥14.0 billion largely due to the divestment of MLS in November 2017. Net sales increased by ¥2.6 billion when factoring out the impact of the divestment of MLS, which contributed ¥16.6 billion to sales in fiscal 2017. Operating profit amounted to ¥14.6 billion, a year on year decrease of ¥3.0 billion mainly due to equipment

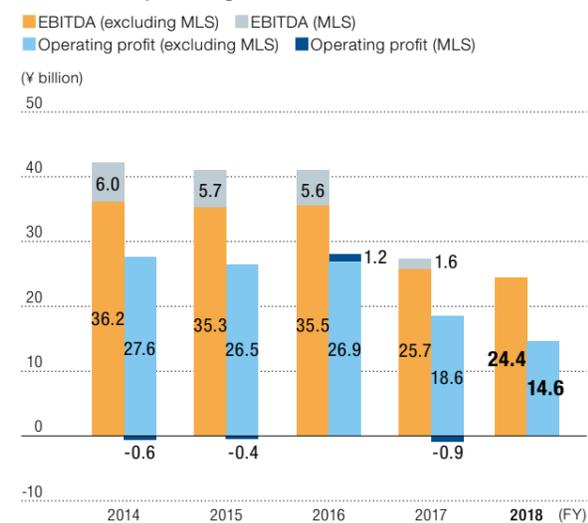
installation costs in the In Vitro Diagnostics business and increases in depreciation and R&D expenses. EBITDA\*, which provides a more accurate indication of cash generation ability, was ¥24.4 billion, a year on year decline of ¥2.9 billion.

\* EBITDA = Operating profit + Amortization of goodwill + Depreciation

### Net Sales



### EBITDA / Operating Profit

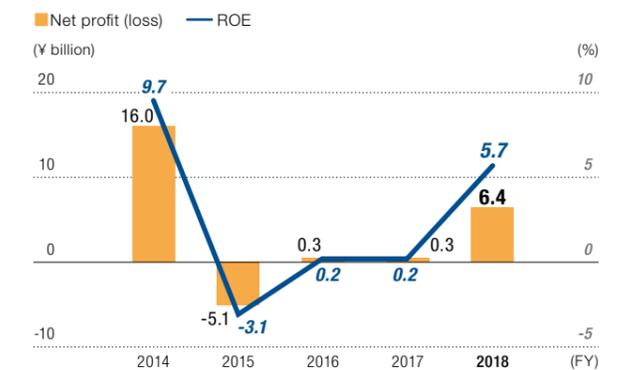


## 4 | ROE and ROIC

### ROE

Profit attributable to owners of parent has remained at low levels for three years owing to extraordinary losses but improved to ¥6.4 billion in fiscal 2018, putting ROE at 5.7%. We will continue seeking to steadily recovering ROE back above 10%.

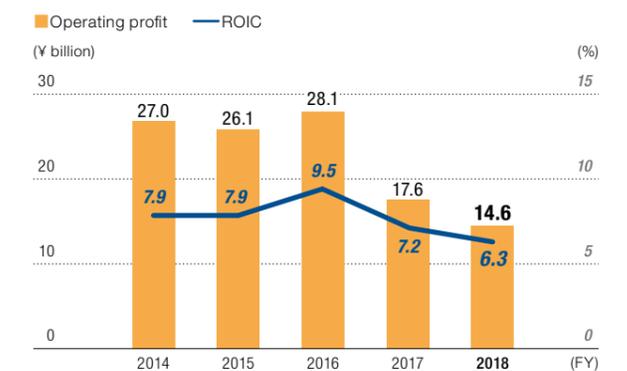
### Profit Attributable to Owners of Parent and ROE



### ROIC

The current Medium-term Plan set an ROIC target of 8% for the plan's final fiscal year of fiscal 2019; however, ROIC in fiscal 2018 was 6.3% as the decline in operating profit caused it to continue to decline. The profit decline was due to increased up-front spending aimed at generating growth in sales, and we expect the higher sales from these investments to boost profits and raise ROIC.

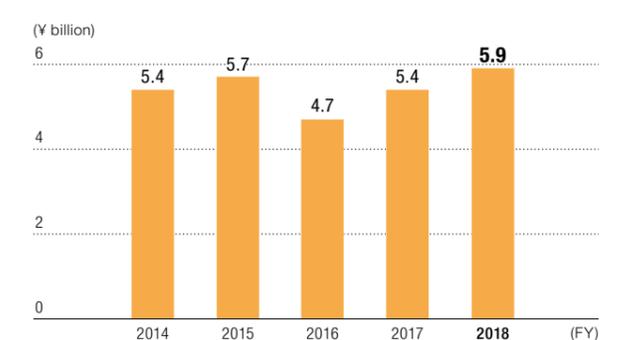
### Operating Profit / ROIC



## 5 | Research & Development

The Company invested ¥5.9 billion in R&D in fiscal 2018. The R&D spending comprised primarily ¥4.8 billion in the In Vitro Diagnostics business centered on the development and commercialization of new reagent items for LUMIPULSE and ¥0.8 billion for basic research mainly at the Miraca Research Institute G.K. The Company will continue allocating funds to R&D as we consider it to be essential for the medium- and long-term business growth.

### Research & Development Expenses



# Capital Procurement Through Social Finance

The Company established a social finance framework in July 2019 with the aim of using social financing as a method of procuring capital.

The framework, based on the Social Bond Principles of the International Capital Market Association, provides a structure for procuring funds to be used for projects seeking to provide solutions to social issues. Funds raised through the social financing were used to install equipment and IT systems for the Akiruno Project (see p. 35) and to fund R&D aimed at enhancing the quality of its testing services and advance the development of innovative technology.

Projects are selected to receive the funds upon a verification of the suitability by the Miraca Group CSR Committee and authorization by the Board of Directors.

In addition, the Company received a third-party assessment to verify the appropriateness of the social finance framework by Rating & Investment Information, Inc., in what is referred to as the R&I Social Bond Opinion.



Image of the New Central Laboratory after completion

The Akiruno Project is a key facility to the Company's medium- and long-term plans. We chose to use social financing for this project because using social financing to procure funds for a business activity like this raises stakeholder awareness of the social aspect of our operations and creates expectations that we will increase corporate value.

The Akiruno Project will engage in finding solutions to six social issues that are arising in Japan because of the changing demographic in the country's population.

1. Demand to reduce social welfare costs (medical costs)
2. Demand to control clinical testing costs while maintaining the quality of medical care
3. Need for more comprehensive medical checkups, presymptomatic disease care (afflictions without symptoms but for which tests find abnormalities), and advanced medical care
4. Need for more comprehensive community-based healthcare
5. Disaster response (uninterrupted testing facility operations after earthquakes or other disasters)
6. Need for research and development that contributes to advanced medical care

## Contribution to Improving Society

Project	Contribution to improving society
<b>Akiruno Project (New Central Laboratory)</b>	<ul style="list-style-type: none"> <li>• Reduced cost per test</li> <li>• Improved testing efficiency and 24-hour operations from automated general tests</li> <li>• Increased testing capacity with expanded processing capability</li> <li>• Higher testing quality</li> <li>• A facility and environment capable of handling testing for the latest medical care</li> </ul>
<b>Research &amp; development</b>	<ul style="list-style-type: none"> <li>• Establish new analytical techniques and minimally-invasive analysis technologies leading to improved and more varied testing technologies</li> <li>• R&amp;D to improve advanced medical technology, such as in regenerative medicine and genetic testing</li> <li>• Establish technology bases to provide high-quality, low-cost advanced testing and medical care as technological advances make them available for practical application</li> </ul>

## Reporting

The Company will disclose information annually in its integrated reports on the use of funds raised through the social financing framework, as well as on the equipment and IT systems acquired and the R&D conducted using the funds.

	New Central Laboratory	Research & development
<b>Output indicators</b>	Summaries, investment cost, operating periods, and other information about newly installed equipment and IT systems (for testing instruments, etc.)	Information about specific R&D investments
<b>Outcome indicators</b>	<ul style="list-style-type: none"> <li>• Percent increase in the number of tests</li> <li>• Percent decrease in the cost of tests</li> </ul>	<ul style="list-style-type: none"> <li>• Progress status of R&amp;D (number of research papers, collaborative projects inside and outside the Group, patent applications, practical applications of project outcomes, etc.)</li> </ul>
<b>Impact indicators (qualitative)</b>	<ol style="list-style-type: none"> <li>1. Reduce the number of points that a test is given for government reimbursement (fewer points lowers social security cost)</li> <li>2. Expand comprehensive community-based medical care and community-based integrated care systems</li> <li>3. Conduct R&amp;D of new testing technology and development of advanced and personalized medical care, and through these raise the quality of life</li> </ol>	

## The Akiruno Project's Relation to SDGs

Goal	Summary of the most closely related SDG	Relation to the SDG
<b>3 GOOD HEALTH AND WELL-BEING</b>	3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	<ul style="list-style-type: none"> <li>• Provide high-quality testing at low cost to contribute to controlled medical costs</li> <li>• Expand testing capacities associated with improved test processing capabilities</li> <li>• Control test costs for diagnostic tests of types not covered by insurance to increase the number of people receiving tests, contributing to improved access to tests</li> <li>• Create diversified tests and make preventive medical care more common through social participation/socially led research and development into minimally invasive/non-invasive testing, in-home testing, and de-hospitalizing</li> </ul>
<b>8 DECENT WORK AND ECONOMIC GROWTH</b>	8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors	<ul style="list-style-type: none"> <li>• Automate the patient receiving and testing process for greater productivity. Automation will reduce the risk of human error</li> <li>• Promote research and development contributing to advanced medical care and innovative testing technologies to contribute to optimal health care</li> <li>• Conduct research and development to further advance medical care technologies for regenerative medicine, genetic testing, etc.</li> </ul>
<b>9 INDUSTRY INNOVATION AND INFRASTRUCTURE</b>	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	<ul style="list-style-type: none"> <li>• Adopt a base isolation structure for the New Central Laboratory to ensure uninterrupted services in the event of a natural disaster</li> <li>• Utilize scalable automated testing lines at the New Central Laboratory when business is interrupted in other regions to expand flexible testing capacity and provide an alternative testing structure (testing uninterrupted during natural disasters, contributing to the medical care infrastructure)</li> <li>• Build facility within five minutes of the Hinode Interchange of the Metropolitan Inter-City Expressway, allowing multiple inbound/outbound routes (for alternative routes if others are blocked during natural disasters) and ensuring good access for distribution in times of natural disaster</li> <li>• Create diversified tests and make preventive medical care more common through social participation/socially led research and development into minimally invasive/non-invasive testing, in-home testing, and de-hospitalizing (allow testing in a variety of locations)</li> </ul>

Source: United Nations, General Assembly, "Transforming our world: the 2030 Agenda for Sustainable Development," September 18, 2015

# R&D and Intellectual Property

The rapidly changing medical and healthcare environment is making it increasingly vital to produce innovation that can contribute to realizing more effective medicines and treatments. The Miraca Group is constantly looking ahead to the medical and healthcare needs of the future and engaged in R&D to provide new value.

## Group R&D Structure

Miraca Research Institute G.K. (MRI) is the center of the Group's corporate R&D activities. Aiming for growth in the medium-to-long term, MRI conducts the basic research needed to generate a steady stream of ideas for future business. MRI also collaborates with entities both inside and outside the Group to stimulate innovation that will create the new businesses and technologies to drive the Group's next-generation growth.

The R&D departments of the Group companies are continuing to advance the technologies they have cultivated to improve and enhance their products and services. They also apply the research results of MRI to develop competitive products and services.

## R&D Expenses



Clinical Laboratory Testing

In Vitro Diagnostics

Sterilization and Related Services

Emerging New Businesses

### Corporate R&D

- Create new businesses and technologies for future growth
- Create projects to stimulate innovation and cultivate personnel
- Create collaborations and synergies across Group R&D activities
- Ally with startups and academia

### Group Company's R&D

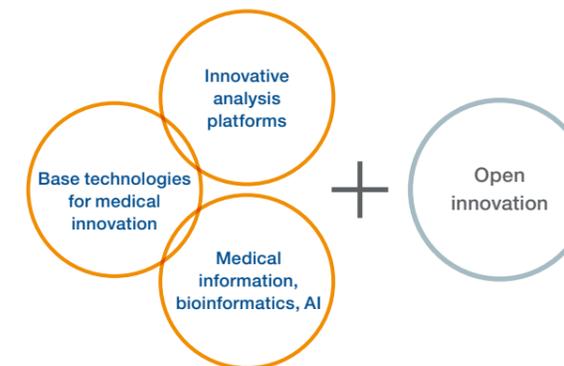
- Fortify product and service pipelines based on each of the business strategies
- Improve and enhance existing products to maximize earnings

## Status of Main R&D Activities

### Miraca Research Institute G.K. (MRI)

MRI introduces new technologies, makes best use of Group R&D assets, and engages in active collaboration inside and outside the Group to formulate new technological foundations. MRI conducts wide-ranging basic research and serves as the main hub for Group R&D activities to develop and optimize medical care in the following domains.

### Main R&D Domains



#### 1. Innovative analysis platforms

We are exploring new minimal and non-invasive testing technologies and establishing detection principles to enable small-scale and quick analysis that will be used to develop preventive medicine and personalized medical care.

#### 2. Medical innovation base technology

We are directing our research into the new realms related to microbiomes\*1, exosomes\*2, and regenerative medicine with the aim of constructing the base technologies for the next-generation of life science research and advanced medical care.

#### 3. Medical information, bioinformatics, AI

We utilize medical data acquired during joint research with medical institutions and also conduct research activities related to AI. We also research and implement our unique AI and robotics technologies using Big Data (operational information) accumulated by the various medical services we provide on a daily basis.

We have already begun using AI technology in some of our testing processes and operations, which is helping to simplify and standardize our business processes. We will continue advancing the use of AI

and robotics to deliver new value and services to the sites of medical practice. We will also continue to apply the strengths of the Group to create new technology bases that will contribute to higher quality and improved productivity in medical processes.

#### 4. Open innovation and personnel development

We are actively collaborating and conducting joint research with research institutions, academia, venture firms, and others to swiftly develop technological innovations both inside and outside the Group for practical application. We are also cultivating the highly skilled and diverse professional personnel that will lead the future development of the healthcare industry.

\*1 A microbiota is the microorganisms that make up the microflora living inside all animals, including humans. The full purpose of the microbiota in mucous membranes and the intestinal tract is not yet known, but research indicates that these microbiomes are a significant factor in the health or sickness of living organisms. The human microbiome is currently the subject of much research as a potential therapeutic target and treatment material.

\*2 Exosomes are vesicles as small as 100 nanometers produced by cells and that hold various liquid substances, such as urine, sweat, and saliva. The protein, nucleic acid, metabolites, and other biological materials in these substances can be used as biomarkers of physiological activity of the vesicle, cell, and the patient. Exosomes are currently the subject of much research as a potential therapeutic target and treatment material.



Entrance to MRI



A research lab at MRI

## Clinical Laboratory Testing

Led by SRL, we are pursuing early introduction and development of technology focusing on new and unique test items to meet the steadily growing demand for more sophisticated and complex testing technologies, such as for genome and DNA analysis.

The content of testing for medical care has changed significantly in recent years as the industry is undergoing a paradigm shift from focusing on the histological (morphological) classifications of diseases to gene mutation and genome information classification for individual patients (personalized medical care, precision medicine).

SRL is taking the industry lead in developing and introducing esoteric tests, such as for IDH1/2 genetic analysis, which is expected to become key in the diagnosis of gliomas, tumors of the brain and spinal cord. The company has also been authorized by associated academic institutions as a testing facility for polymerase chain reaction-minimal residual disease (PCR-MRD) used to diagnose acute lymphocytic leukemia. We will continue using our highly sophisticated

technical abilities to develop and introduce new testing methods to meet the growing need for more advanced healthcare and personalized treatment capability.

SRL and MRI are also actively working together to integrate AI, robotics, and other emerging technologies to further raise the standards of testing quality and technological capabilities\*. We will continue contributing to the ongoing development of medical care by working to realize high quality, low cost testing and analysis technologies.

\*We are integrating artificial intelligence technology to chromosome analysis and a wide range of testing processes, which is helping to standardize our business operations and shorten the time needed to report test results.



## In Vitro Diagnostics

In the IVD business centered on Fujirebio, which has over 50 years of experience in immunoassay-related domains, we develop unique and brand-new products, including low molecular sandwich immunoassays\*1 and iTACT®\*2.

As for our LUMIPULSE Series, we are continuing to expand the reagent menu in various testing categories. Fujirebio and MRI are also working together to develop next-generation immunoassay platforms.

The IVD business has a global structure enabling integrated development functions through its bases in Japan, the United States, and Europe. Overseas

### An Abundant Development Pipeline of Products for Various Applications

(Examples of reagents to be marketed for LUMIPULSE® L2400)

Infectious diseases	HCVAg, HBcrAg
Thyroid diseases	Thyroglobulin
Heart disease	Myoglobin, CK-MB
Other endocrines	Renin, aldosterone
Tumor markers	SCC
Bone related	25-OH vitamin D
Other	Type IV collagen 7S, PGE-MUM, AMH, TDM

subsidiaries are engaged in leading product development, including a subsidiary in the United States offering world-class cancer testing products and a subsidiary in Belgium developing Alzheimer-related products.

\*1 Existing immunoassays using low molecular sandwich immunoassay methods (non-competitive format using two or more antibodies), which often focus on hormones or vitamins, are becoming increasingly problematic. The Miraca Group has applied its sophisticated antibody production technology and assay (reagent) expertise to create a technological platform that makes it possible to conduct low molecular immunoassay using the same principles as the current methods but producing more accurate and highly reproducible measurements. We are planning to launch various products for the market using the technology followed by Lumipulse® 25-OH vitamin D non-competitive sandwich assay currently on the market.

\*2 iTACT® (immunoassay for total antigen including complex via pretreatment) is an innovative technology developed by the Group that incorporates preprocessing of specimens to enable more accurate measurements of the target substances than existing technologies. The Group plans to launch sales beginning with Lumipulse thyroglobulin in fiscal 2019 and is preparing an abundant pipeline of products to roll out in fiscal 2020 and beyond that will contribute to more accurate diagnoses.



LUMIPULSE® L2400

## Intellectual Assets

Miraca Holdings' Intellectual Property Department conducts the centralized management of the intellectual assets of Group subsidiaries, centered on Fujirebio and SRL, and related companies in Japan and overseas. Through this structure, the Miraca Group maximizes the internal use of its intellectual assets while also minimizing the risk to the assets. In recent years, the Group has been proactively supporting and protecting the MRI's efforts to apply

new technologies to generate innovation for research in an expanding range of areas.

### Patents

The Miraca Group as a whole held some 850 patents as of the end of fiscal 2018. Group companies submitted 20 new patent applications in fiscal 2018, including seven related to AI and IoT.

### Highlight 1 Joint Research in New Liquid Biopsy Technology

MRI and equity-method subsidiary of Miraca Holdings, Baylor Miraca Genetics Laboratories (BMGL), are engaging in open innovation inside and outside the Group to create new businesses that will drive our future growth. As part of that, in 2019 we entered a contractual agreement for industry-academia collaboration with the Baylor College of Medicine in Texas of the United States to elucidate the clinical significance of extracellular vesicles (EVs\*1). EVs are attracting much attention as key targets for "liquid biopsies"\*2, a promising next-generation minimally invasive testing method.

MRI successfully developed technology enabling consistent extraction and accurate analysis of highly pure EVs from blood, urine, and other substances, which had been beyond the capabilities of existing technologies. In the joint research, MRI is providing proprietary technology and expertise from its research

in EVs to BMGL, which is combining them with the advanced genome analysis methods of BMGL and the Baylor College of Medicine to search and identify cancer-related biomarkers.

Our objective for carrying out this research in the United States, which is at the forefront of clinical use of liquid biopsy, is to shorten the timespan from verifying the clinical benefits to practical use in society and bring this less invasive diagnosis method to patients as quickly as possible.

\*1 EVs are small particles of about 100 nanometers shed by cells in the blood with protein, DNA, RNA, lipids, metabolites, and other substances either inside or attached to their outer surface. EVs play an important role communicating between cells and are known to contribute particularly to the occurrence, metastasis, and infiltration of cancer.

\*2 Liquid biopsy is a method of analyzing cancer-derived substances in the blood, such as circulating tumor DNA, EVs, and circulator tumor cells, to evaluate the characteristics of a patient's cancer tissue. Liquid biopsy is significantly less invasive than existing biopsy methods and promises to offer a supplemental or alternative testing method.

### Highlight 2 Medical Mathematical Modeling Course Presented with the University of Tokyo

The Miraca Group brought together MRI, SRL, and the University of Tokyo to present a special social collaboration course entitled "Medical Mathematical Modeling." The course, which is being offered for three years at the University of Tokyo Graduate School of Frontier Sciences, explores the potential to use mathematical modeling to elucidate cancers and form cancer treatment strategies.

The course will apply our current knowledge to create and analyze an evolutionary dynamic model representing the progression mechanisms of pathological conditions representative of cancer and seek to

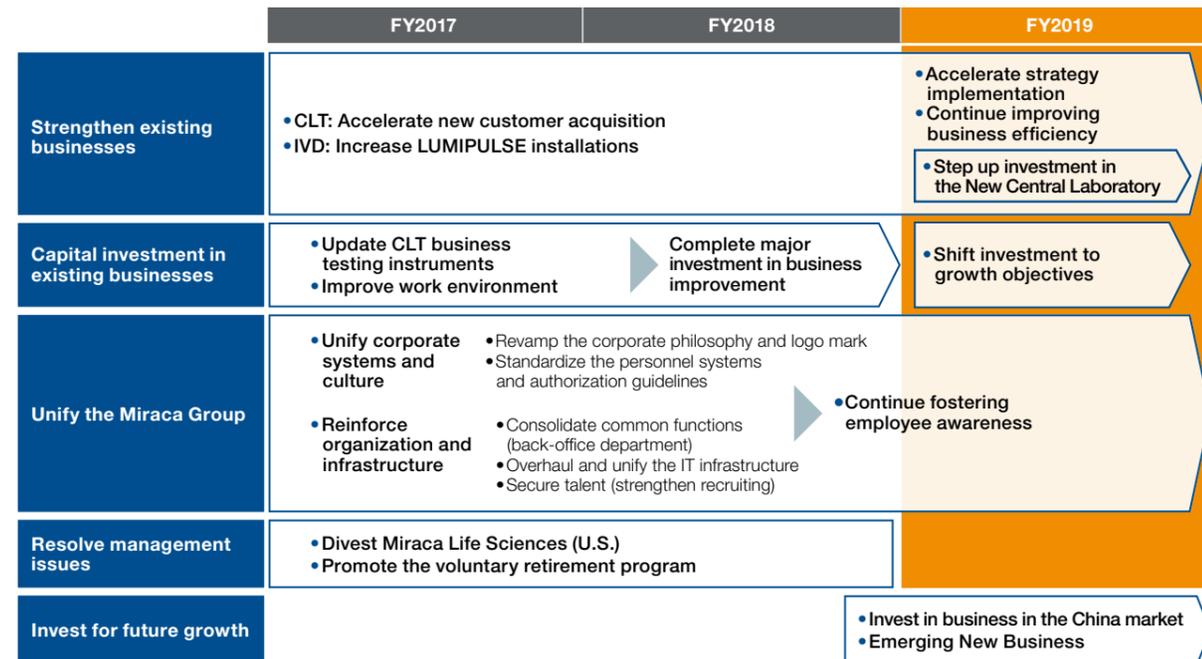
establish a mathematical rendering of cancer development and progression mechanisms. The Group is also conducting joint research with advanced medical and research institutions, such as the nearby National Cancer Center Hospital East, and verifying clinical data with the aim to lead innovation that will enable more detailed and accurate personalized medicine.

We will continue to join in collaborative research and cultivate personnel specializing in medical mathematical modeling to contribute to the development of personalized medical care for cancer and other diseases.

# Special Feature 1 Progress of the Medium-term Plan

## Advancing various measures to establish a growth trajectory, and widening our business domains for a new stage in our history

### Medium-term Plan and fiscal 2019 Status

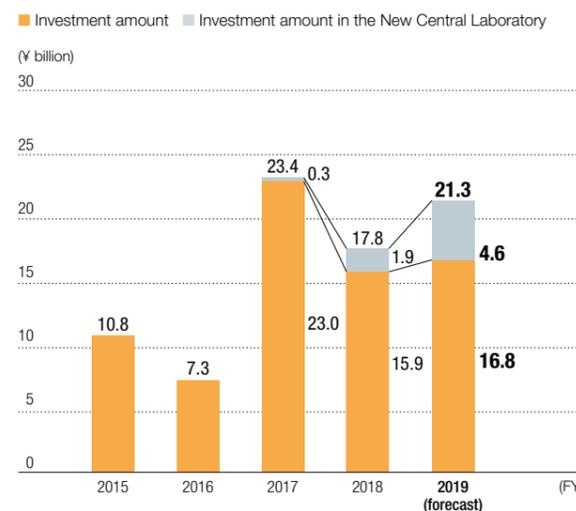


### Review

The Medium-term Plan "Transform! 2020" sets a three-year period for building the foundation for significant and sustainable business growth and with specific strategies aimed at increasing sales. These strategies, when excluding the divestiture of the Miraca Life Sciences in November 2017, led to record high sales. The strong sales in the CLT business were achieved through new customer acquisitions and increased testing volume, which overcame price contraction. Our efforts to boost sales and attract new customers have accelerated the pace of our earnings growth, which was particularly noticeable in the second half of fiscal 2018.

Profits declined year on year in fiscal 2018 owing to the increase in depreciation costs arising from the investment to update existing facilities and the upfront investments geared toward future growth. We have completed our facility updates and plan to continue with growth investment to further broaden our customer base.

### Capital Investment (excluding Miraca Life Sciences)



To fulfill the Medium-term Plan to lay the foundation for business growth, we determined that it was essential to make the Group more unified and took steps to renew the Group philosophy and integrate the systems, structures, and infrastructures of the Group companies. These measures already started showing signs of gaining traction by the end of the plan's second year of fiscal 2018.

We believe that changing the mindset of employees is key to making our corporate transformation a success. The company CEO held special meetings to explain our policies and direct dialogues with all employees at our regional offices and subsidiaries. We also took steps to make work environments more physically and mentally comfortable to create a work atmosphere conducive to communication among employees. Our aim with these

measures is to create a corporate culture where employees can have a positive approach to taking chances. We will continue to facilitate smooth internal communications and foster a positive mindset throughout the Group.

In fiscal 2018, we also neared completion of our active capital investment to fully establish our internal infrastructure and install new testing instrument operations. The sales promotions in each business, including the aggressive customer acquisitions in CLT and promotion of LUMIPULSE installment in IVD, enabled us to set a strong business foundation for future growth. We are now commencing full-fledged investment in our New Central Laboratory to make our existing businesses more efficient and to generate rapid and sustained business growth.

### Plan for fiscal 2019 and the Future Outlook

In fiscal 2019, the final year of the Medium-term Plan, we anticipate falling short of our performance targets, although we expect to accelerate sales growth. Nevertheless, our reform for growth is steadily moving forward overall and our strategies are starting to produce results. We are now turning our focus to growth investment, including in the New Central Laboratory, to develop and cultivate new businesses for future growth.

Medical care in Japan has an increasing need for community-based healthcare, and the role of general practitioners (GPs) is growing as the country establishes a primary care physician system to reduce the burden on hospitals. In these conditions, one focus of our Medium-term Plan is to broaden our service offerings and strengthen our connections with GPs who will play an important role in realizing a fully functioning community-based healthcare structure. We will also leverage the Group's assets to offer services in the in-home healthcare services domain, including home-visit nursing care.

Meanwhile, the Miraca Group will continue developing business in areas outside the medical field. By horizontally expanding the technology and expertise we have accumulated in the clinical testing area, we will create high-quality testing services in the food products, environmental, and cosmetic testing domains with the objective of becoming a comprehensive testing company. In the wellness field, the Group will begin offering services to respond to the increasing need for pre-symptomatic care and self-medication.

Our global strategy is to focus on Asia for business growth. We plan to establish a business model similar to that in Japan to enter the Asian markets, especially China with its large population. We established a joint venture with China's largest insurance company, the Ping An Insurance Group in February 2019. We look forward to developing business by integrating the Ping An Insurance Group's extensive customer base and sales force with our strength in clinical testing technologies and expertise.

### Medium-term Plan Targets

	Target revised May 10, 2018	FY2019 forecast	Difference
<b>Net sales</b>	207.0	191.0	-16.0
<b>Operating profit</b>	25.0	14.5	-10.5
<b>EBITDA</b>	38.0	26.5	-11.5
<b>ROE</b>	10% or more	6.8%	—
<b>ROIC</b>	8% or more	5.2%	—

### Factors in the Target Shortfall

Sales
<ul style="list-style-type: none"> <li>Price contraction beyond expectation (CLT)</li> <li>Shortfall in new customers acquisitions accompanied fewer sales transactions than planned (CLT and IVD)</li> </ul>
Profit
<ul style="list-style-type: none"> <li>Shortfall due to lower-than-planned sales (CLT and IVD)</li> <li>Delay in rationalization measures (CLT)</li> <li>Upfront investment for expansion in Asia (CLT)</li> <li>Upfront investment for OEM business reinforcement (IVD)</li> </ul>

### Highlight 1 Increasing Business with General Practitioners

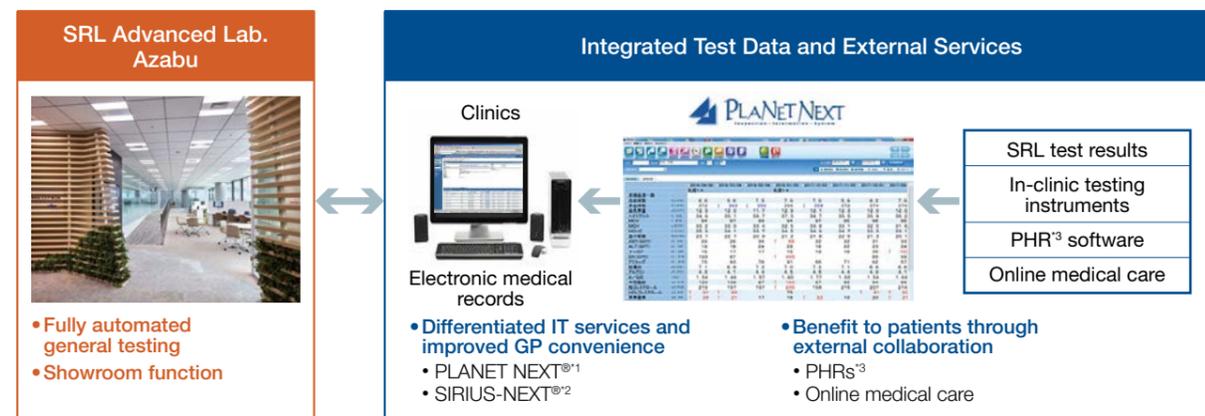
SRL opened the new concept, cutting-edge laboratory SRL Advanced Lab. Azabu in May 2018 to provide support to GPs in Tokyo, which has the fastest growing number of new GP clinics in the country.

The laboratory conducts fully automated general testing processes using automated conveyance lines, collaborative robots, and other technologies enabling it to provide highly accurate testing results to medical institutions. The high degree of automation allows the laboratory to operate with minimal use of human resources.

In addition to the state-of-the-art testing processes, the laboratory also serves as a showroom so visiting GPs and other medical service providers can directly observe our clinical testing processes while also being introduced

to our various services. Visitors can see the use of electronic medical records, the full process from a test request through results reporting, our IT-integrated testing instruments, Personal Health Record software, and online medical care tools supplied by the Miraca Group. The lab tours also provide opportunities for business discussions with medical device makers, electronic medical record suppliers, and pharmaceutical wholesalers. The laboratory's technology and diverse capabilities are garnering strong praise from many visitors.

We will continue to build our customers base and expand our business by providing high-value-added services that increase convenience for both doctors and patients.



\*1 Electronic medical record and analytical instrument system  
 \*2 Tablet-based test order system  
 \*3 Personal Health Records



Testing laboratory at the SRL Advanced Lab. Azabu

### Highlight 2 Broadening our Genetic Testing Services

The technical innovation and advances in leading medical care are creating new business opportunities for SRL in its field of specialty of esoteric testing on virtually a daily basis. The mission of the Miraca Group is to meet the growing need for supporting businesses related to cancer genome sequencing, new businesses in the regenerative medicine field, and other advancing and emerging areas in the medical industry.

In October 2018, SRL and the Shizuoka Cancer Center jointly established SRL & Shizuoka Cancer Center Collaborative Laboratories, Inc. in the clinical cancer sequence<sup>\*1</sup> business.

SRL also has an internal Cancer Genetics Strategy Office to ascertain medical and research institution needs and quickly organize a business operation to meet those needs. Examples of new operations include two types of cancer gene panel testing that became eligible under

Japanese National Health Insurance in 2019. In addition, SRL started testing services for medical institutions through partnership agreements with Chugai Pharmaceutical Co., Ltd. for its FoundationOne<sup>®</sup>CDx Cancer Genome Profile<sup>\*2</sup> and with Sysmex Corporation for its OncoGuide<sup>™</sup> NCC Oncopanel System<sup>\*3</sup> for cancer genome profiling.

We will continue to increase earnings by expanding the clinical testing business, including through alliances with testing and pharmaceuticals firms offering gene-related tests and analysis systems and programs, while contributing to advances in cancer treatment.

\*1 Comprehensive analysis, such as of cancer genes, helps doctors diagnose disease, select drugs, and determine the method of treatment.  
 \*2 A gene mutation analysis program developed by Foundation Medicine Inc. (United States), under the aegis of F. Hoffmann-La Roche, Ltd (Switzerland).  
 \*3 A cancer gene profiling system developed by the National Cancer Center Japan and Sysmex Corporation (Japan).

### Highlight 3 Launch of the Home-visit Nursing Business



The Miraca Group launched the home-visit nursing business through Care'x Inc. in October 2018 to meet the growing need for in-home support services accompanying government efforts to create a community-based integrated care system\*.

Under the Star-Q brand, the company provides home-visit nursing, home-visit long-term care, home care support from bases in the greater Tokyo and Osaka metropolitan areas. Each base's home-visit nursing station and care plan center use information and communications technology to immediately share data between nurses and home caregivers as well as with non-medical service providers. A full structure of nurse education and training programs enables the company to improve its service quality and respond to a wide variety of patient needs.

The Group has expanded its business primarily by providing clinical testing services for medical institutions and testing centers. The home-visit nursing business is the Group's first foray into a business-to-consumer (B2C) operation and seeks to provide high-quality services using its own approach and system to ensure quality and safety. We will also combine our medical care and nursing activities to provide new services that can only be realized by the Group.



\* A community-based comprehensive support and service system to provide housing, medical, nursing, preventive, and lifestyle support to enable elderly individuals to maintain their dignity and independence while living the lifestyle they are used to as long as possible where they feel the most comfortable.

#### Highlight 4 Re-entering the Food, Environment, Cosmetics Testing Business



The Miraca Group has decided to re-enter the food, environment, and cosmetics testing business. Applying the technology and expertise we have accumulated in clinical laboratory testing, we aim to become a comprehensive testing company across a broader range of industries.

Although the specimens or samples to be tested are different, our testing expertise is ideally suited to analysis and reporting processes for quality management in these fields. In addition, the business operating efficiency

provided by our Group infrastructure will allow us to immediately differentiate our services for testing speed and automation.

Miraca Vitas, Inc., a newly established subsidiary, started operations in June 2019 in this new field. We plan to use our strengths to expand the business with an initial focus on food product testing where we anticipate growing demand for gene and allergen testing.



Miraca Vitas testing lab



Test in process at Miraca Vitas



Testing laboratory at the Guangzhou Laboratory of the Ping An Insurance Group

#### Highlight 5 Joint Venture with the Ping An Insurance Group of China

In February 2019, the Miraca Group established a clinical laboratory testing joint venture with China's largest insurance company, the Ping An Insurance (Group) Company of China, Ltd.

The JV seeks to merge the Miraca Group's technologies and expertise from its CLT business with the Ping An Insurance Group's customer assets and sales capabilities to offer high-quality clinical testing services in the Chinese markets. The JV will also serve as a conduit for the Miraca Group to provide consulting and support services to the nationwide network of testing laboratories planned to be opened by the Ping An Insurance Group.

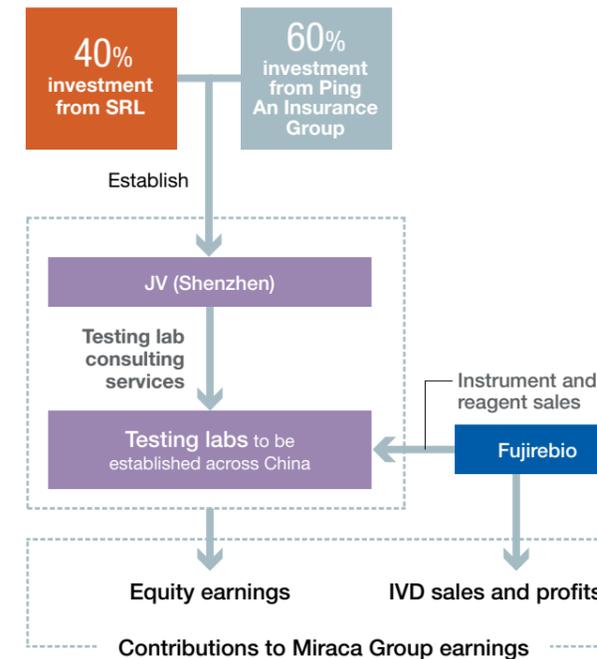
We provide our testing instruments and reagents for their laboratories, which will generate growing profits for the Miraca Group. This is part of our medium- to long-term

business expansion plan to broaden the geographic base of our operations through partnerships and expand our business development centered on Asia.



Opening ceremony of the Shenzhen Laboratory

#### Joint Venture Development Scheme



#### Outline of the Joint Venture

Company name: Ping An SRL Medical Laboratories  
 Registered capital: 400 million yuan  
 \*40% investment from SRL (Hong Kong) Ltd.  
 Location: Shenzhen, Guangzhou Province, China  
 Representative Director: Ying Jiang  
 Date of establishment: February 2, 2019

#### Schedule

Feb. 2019 Established JV company  
 Aug. 2019 Opened testing laboratory in Shenzhen  
 ...  
 FY2022 Achieve profitability for equity earnings from the JV

## Special Feature 2 New Central Laboratory

# Full-fledged construction of New Central Laboratory heralds the future of Miraca

\*All images are artist renderings of the completed building

The Miraca Group commenced full-fledged construction of a new central facility in Akiruno, Tokyo, in February 2019. Originally announced in June 2018, the Akiruno Project calls for building a cutting edge facility complex centered on the New Central Laboratory. When completed, the complex will vastly boost the Group's technical capabilities and efficiency, and serve as a new base for general testing for the greater Tokyo area and esoteric testing for clients nationwide. We plan to make steady progress toward a launch of operations in spring 2021.

### Six Conditions for Construction

The corporate mission of the Miraca Group is to "Create new value in Healthcare and contribute to the prosperity of people," and we are taking steps to remain a company that society depends on well into the future. The Group is uniting to construct this state-of-the-art testing laboratory to realize the full force of our technical capabilities and operations. We will be able to conduct a wide range of basic research and develop products and services while fulfilling our social responsibilities to run environmentally sound operations and maintain a resilient business continuity plan (BCP)\*.

The current SRL Hachioji Laboratory, which was built in 1980, has been expanded several times and is now at its limit in terms of space, and each addition has diminished its operating efficiency. Taking into account all factors, including the inefficiency of having laboratories scattered in various areas as well as the aging facilities and outdated core operating systems, management determined that the existing facility would not be able to

sufficiently support the Group's continuing growth and could hinder our ability to respond to changing business conditions. To ensure the new facility would be able to fulfill our needs in the new era, management set "Six Conditions" for the facility design.

\*A business continuity plan contains precautions to minimize damage to the company and maintain continuous or quickly reestablish operations in the event of a disaster or emergency situation.

#### Six Conditions for the Facility and its Functions

- |                       |       |                                      |
|-----------------------|-------|--------------------------------------|
| 1. Full automation    | ..... | Improve testing quality              |
| 2. Utilize IT and AI  | ..... | Increase testing speed               |
| 3. Efficient workflow | ..... | Reduce costs                         |
|                       |       | Labor-saving operation               |
| 4. Seismic resistance | ..... | BCP                                  |
| 5. Full-scale R&D     | ..... | Future business creation             |
| 6. Welfare enrichment | ..... | Employee-friendly working conditions |

### Layout for a Full Service New Central Laboratory

#### Layout of the New Central Laboratory Complex

##### R&D Building

- Basic research leading to new businesses
- Development and application of new test items
- Development of next-generation platforms

##### Testing Laboratory Building

- World's largest state-of-the-art laboratory
- Fully automated general testing
- Esoteric testing incorporating AI technology



##### Administrative Building

- Reception desk
- Reception rooms
- International conference rooms

##### Welfare Building

- Main conference hall
- Training rooms
- Restaurant

The Akiruno Project is a major undertaking for the Group with a total outlay of some ¥75 billion.

The primary reason for choosing Akiruno in outer Tokyo as the site of the project is its close proximity to the Hinode Interchange of the Metropolitan Inter-City Expressway, enabling convenient access to the greater Tokyo area, including Tokyo International Airport (Haneda), and other major cities. The location thus offers the excellent accessibility to major air and land routes that is essential for delivering or receiving test specimens, which is key to the Group's business. The recently completed major expressway is also designed with the latest engineering technology to be resilient in the event of a major disaster.

The laboratory grounds are an expansive 120,000

square meters surrounded by trees, providing a spacious setting for separate buildings housing the testing laboratories, R&D operations, administrative, and welfare activities.

The Testing Laboratory Building will be able to handle more than double the testing volume of the current Hachioji laboratories, and the new operating system will support both general tests and esoteric tests. The basic research and development of products and services for the Group's future business will be conducted in the R&D Building. The Administrative and Welfare Buildings will be part of an open facility allowing a greater number of visitors to observe not just our testing and research activities, but also visit our large multipurpose hall and conference rooms as well as a restaurant, and showroom.

## Creating the World's Most Advanced Testing Laboratory

### Design Concept

The design of the New Central Laboratory was guided by three concepts: *connect*, *exhibit*, and *nurture*. These reflect core qualities that the Miraca Group will be pursuing in its new businesses.

The new site will *connect* with people who visit the labs, with local communities, and with medical facilities, and it will connect technologies and ideas. It will be a place to *exhibit* our state-of-the-art laboratory and display technologies in the multipurpose hall and showroom. Finally, the site will provide a rich research environment and several training facilities to generate and *nurture* new ideas and the people that will shape our future. More than a testing facility, the new site will be a highly versatile research complex for a wide variety of activities.

In addition to these three concepts, we also considered the flow of the various processes that will occur at the site. The facility layouts are designed to promote efficient workflow for our personnel, but they are also devised to encourage laboratory workers and visitors to naturally engage in dialogue and stimulate ideas that could spark new concepts and products. We are seeking to create an overall environment that will inspire inventiveness and open doors to new possibilities.

The buildings are also designed to be resilient in the event of a disaster. The Group has a mission to be able to

maintain uninterrupted testing operations for our clients in any circumstances, and we have taken every precaution to ensure our business continuity plan (BCP) initiatives are prepared for any circumstance. The Testing Laboratory Building and the R&D Building will be seismically isolated structures, and the Administrative and Welfare Buildings will be seismic structures equipped with emergency water storage tanks. The facility building will be engineered to have minimal shaking when earthquakes occur so testing operations can continue without interruption.

### Building Data

	Testing Laboratory Building	R&D Building	Administrative and Welfare Buildings
Stories	3	4	Administrative Building Welfare Building
Total Floor Space (Approx.)	46,000 m <sup>2</sup>	10,000 m <sup>2</sup>	10,000 m <sup>2</sup>
Features	<ul style="list-style-type: none"> <li>Seismically isolated structure</li> <li>Fully automated general testing</li> <li>Improved esoteric testing efficiency from use of state-of-the-art equipment and robots</li> </ul>	<ul style="list-style-type: none"> <li>Seismically isolated structure</li> <li>Miraca Research Institute and Fujirebio departments relocated from Hachioji</li> </ul>	<ul style="list-style-type: none"> <li>Seismic structures</li> <li>Showroom</li> <li>Comfortable atmosphere, verdant landscape, environmentally friendly</li> </ul>

Site area: 122,000 m<sup>2</sup>/Total floor space: 66,000 m<sup>2</sup>



An open, airy environment with a restaurant and multipurpose hall

### Facility Design Concept



### Addressing Social Issues

The New Central Laboratory will have a common integrated system for all laboratories and a new core system with the latest technologies, including AI and IoT. This will vastly improve operating efficiency and quality over the current independent systems of each SRL laboratory.

#### •A State-of-the-art Testing Facility

Our objective is for the new Testing Laboratory Building to house the most up-to-date testing labs with preeminent technical capabilities and efficiency.

The most outstanding feature will be the full automation of our general testing operations. The complete process from specimen receipt, testing, and storage will be automated, which will not only increase efficiency, but will also eliminate human error and improve the quality of the tests. Full automation will enable 24-hour operation and next-day result reporting to clients. In addition, the increased testing capacity will enable us to accept specimens from customers throughout the greater Tokyo area while the ability to handle a larger volume of tests will reduce costs.

The architectural design will also give us scalability to add new technologies and swiftly pivot to meet esoteric testing needs in new domains. We will continue to develop

the automation, robot, and AI technologies we have accumulated to further enhance the quality and improve the exceptional efficiency of the testing operations.

#### •The Future of Testing

With the R&D Building, we are seeking to create a new hot spot for the creation of research culture and innovation. To date, each Group company has carried out its own R&D, but we will concentrate the Group's R&D functions into a single location. This will enable agile response to the changing industry structure and rapid technological advances and conduct the basic research needed to strengthen and broaden the Group's technological foundation for the future. The R&D Building is designed to be where the Group's corporate culture of research and innovation will take root so we can continuously sow seeds for future businesses. The building will also be a center where Group companies and outside institutions can join in open innovation to help address pressing medical and social problems. The facility will enable us to contribute in all aspects of the life sciences from biochemistry research to AI, information science, and manufacturing to meet the Group's present needs and drive new businesses 10 years in the future.

**Business Segments**

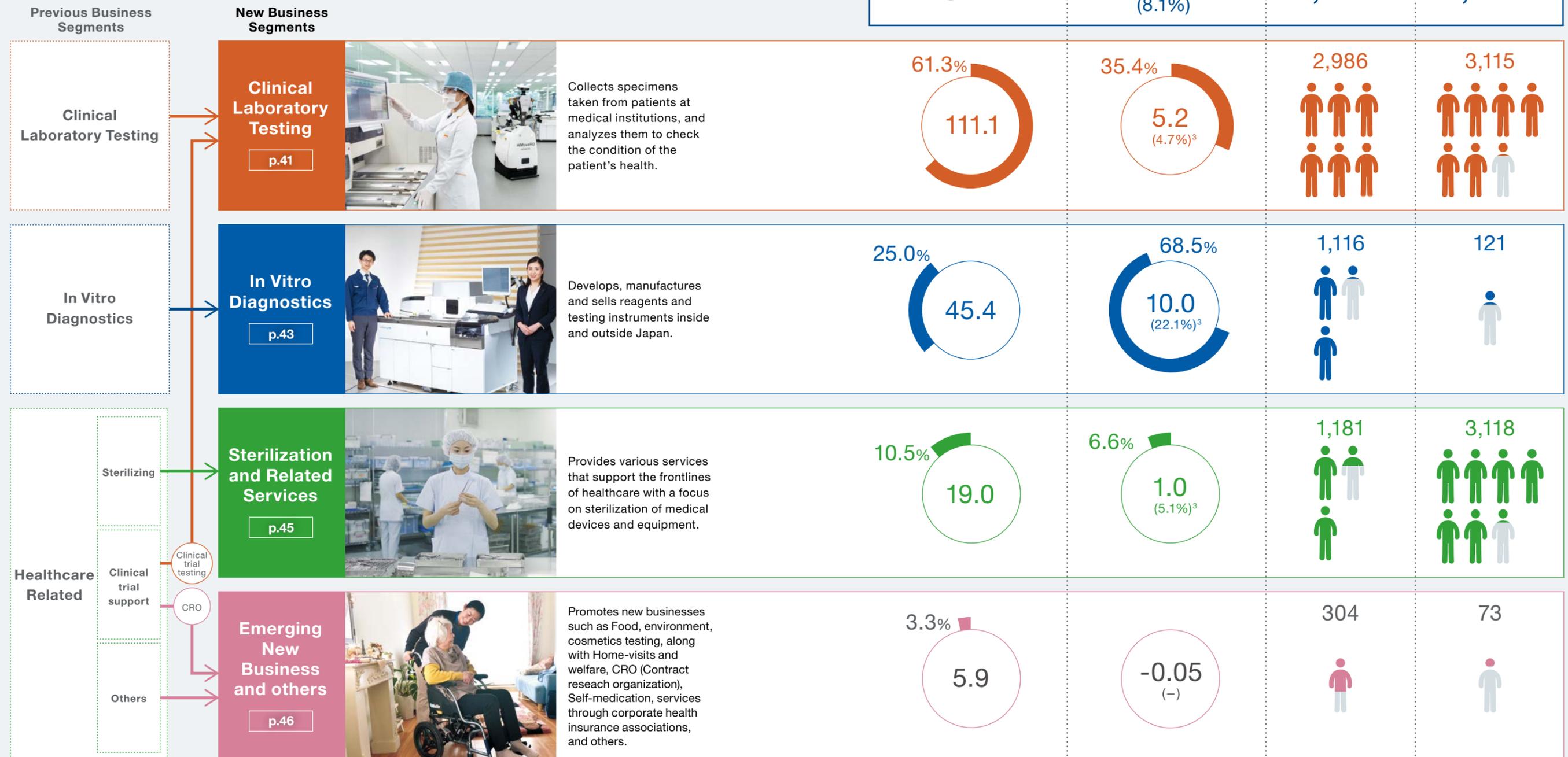
Overview of Results

# Business Segment Changes in Fiscal 2019

We newly established the Emerging New Business segment while revising the composition of the three existing segments based on their characteristics and scales in order to promote rapid and sustainable future growth. The Emerging New Business segment will focus on technology application and services development in areas other than our previous core focus of healthcare.

• Results for fiscal 2018

Net Sales (¥ billion)	Operating Profit (Operating Profit Margin) (¥ billion)	Number of Employees	
		(Permanent)	(Temporary)
181.4	14.6 <sup>1</sup> (8.1%)	5,957 <sup>2</sup>	6,452 <sup>2</sup>



Note: Amounts have been rounded to the nearest ¥100 million.  
 1. Includes corporate expenses and intersegment eliminations.  
 2. Includes employees of Miraca Holdings Inc. and Miraca Research Institute G.K. The number of temporary employees indicates average personnel per year.  
 3. Ratio of operating profit to net sales for each business.

## Clinical Laboratory Testing (CLT)



In our Clinical Laboratory Testing business, we analyze more than 200,000 specimens every day for medical institutions. We receive samples from hospitals, clinics, and other institutions, which are tested at Group laboratories as our Off-site testing business. Our In-hospital testing business not only runs testing laboratories within hospitals, but also handles everything from improving the efficiency of those operations, to offering training and high-value-added comprehensive consulting.

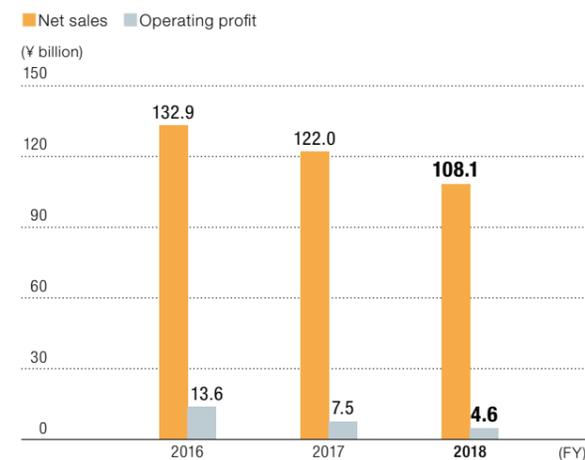
### Results for Fiscal 2018

In terms of top line performance, as of November 2017, net sales declined as a result of divestment of Miraca Life Sciences, which performs anatomic pathology tests in the United States. Domestic net sales in the first half saw limited growth partly due to natural disasters. However, sales gradually increased from the second half thanks to sales gained from newly acquired customers, leading to an overall increase in revenue for the year.

As for bottom line performance, profits declined overall due to increased expenses, including the outlay of upfront costs for establishing a growth foundation and increased depreciation of capital investment, as well as a late onset of sales growth.

In accordance to the above, net sales totaled 108,084 million yen, an 11.4% decrease from last year, and operating profit came in at 4,637 million yen, down 38.2% over last year.

#### Net Sales/Operating Profit



\*Figures are for old business segment

### Progress of Key Measures

#### Acquire General Practitioner Clients

The role of general practitioners is becoming increasingly important amid the trend toward differentiation of medical functions, linkages between healthcare and nursing care, and promotion of community-based integrated care systems. At the same time, as medical fees for general tests mainly conducted by general practitioners have already been reduced close to the lower limit, it is becoming harder to acquire customers by lowering prices. Given this background, we began offering IT tools which enhance convenience and cost reduction to differentiate ourselves while providing services in collaboration with outside parties with high added-value to both patients and physicians.

In addition, the development of satellite laboratories in the Greater Tokyo area is underway. In May 2018, we opened SRL Advanced Lab. Azabu, which functions as a show room, and makes it possible to handle fully automated processing with respect to general testing.

In terms of organizational aspects, we also launched sales organizations that target the general practitioner markets in Osaka and Fukuoka, following the Greater Tokyo area.

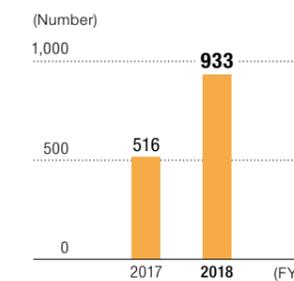
As a result, the net increase of general practitioner customers was 933 and the total sales in the same market increased by 2.5% year on year in fiscal 2018.

#### Proactive Investment in In-hospital Testing Business

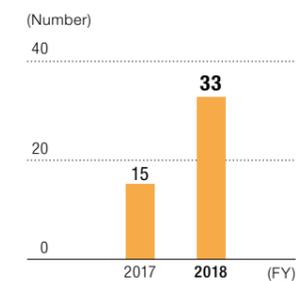
As hospital management is becoming increasingly challenging, there has been mounting demand to achieve efficient operations of in-hospital testing. In light of this, we have acquired customers by offering proposal-based marketing on the basis of standardized packages centered on products of the IVD business. As a result, the net increase in customers was 33, and net sales increased by 3.0% year on year in fiscal 2018.

Going forward, we will enhance our relationship with customers and expand transactions of the off-site esoteric tests.

#### Net Increase of General Practitioner Customers



#### Net Increase of In-hospital Customers



### Plan for Fiscal 2019

We aim to increase net sales through efforts that involve making use of IT tools and the new satellite labs in the general practitioner market, and enhancing synergies with the IVD business in the in-hospital testing market. Moreover, we will expand our customer base and increase sales through connections with corporate health insurance associations within the medical checkup market.

In terms of transactions with existing customers, the average price contraction is expected to be 1.5% (3.5% contraction last year) as fiscal 2019 is not subject to medical fee revision that occurs every two years, while some customers have already signed multi-year contracts in the last year.

In terms of profits, upfront investment (expenses) to expand business in Asia totals around 700 million yen. We expect to see a recovery period for investments

thus far in rationalization and aim to increase profits by accelerating operational optimization and fundamentally improving efficiency with the use of IT including AI and Robotic Process Automation (RPA).

#### Net Sales/Operating Profit



\*Figures are for new business segment

## In Vitro Diagnostics (IVD)



In our In Vitro Diagnostics business, we develop and manufacture in vitro diagnostic reagents and testing instruments, which we sell to medical institutions and clinical laboratories all over the world. Our LUMIPULSE® series of flagship products features a fully automated chemiluminescent enzyme immunoassay system, and have been an integral part of clinical testing sites for more than a quarter century with its high quality and superior performance. In addition, our U.S. subsidiary supplies OEM reagents and raw materials (antibodies) to global diagnostic manufacturers.

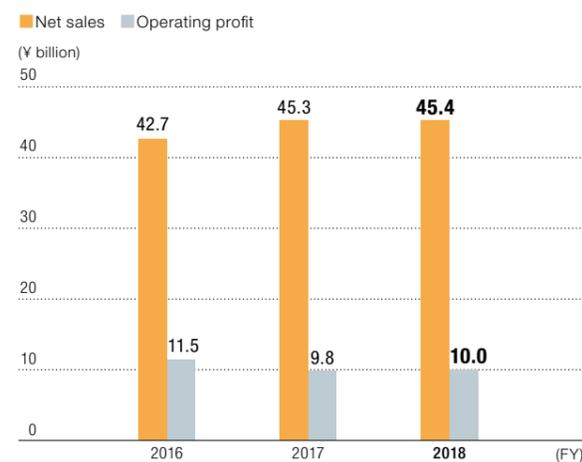
### Results for Fiscal 2018

As for top line performance, sales were on par with the previous year thanks to growth in mainstay Lumipulse reagents and robust growth in the OEM/raw materials supply business, despite the end of sales of certain overseas products and impact from fewer sales of manual products, including the drop in transient sales compared to last year.

In terms of bottom line performance, we posted higher profits compared to the previous year owing to changes in the product mix and other factors.

As a result, net sales increased 0.2% year on year to 45,399 million yen and operating profit rose 2.0% to 10,035 million yen.

#### Net Sales/Operating Profit



\*Figures are for old business segment

### Progress of Key Measures

#### Expand LUMIPULSE Business

Sales from our LUMIPULSE business increased 613 million yen to 19,460 million yen thanks to efforts to expand sales of our mainstay LUMIPULSE products.

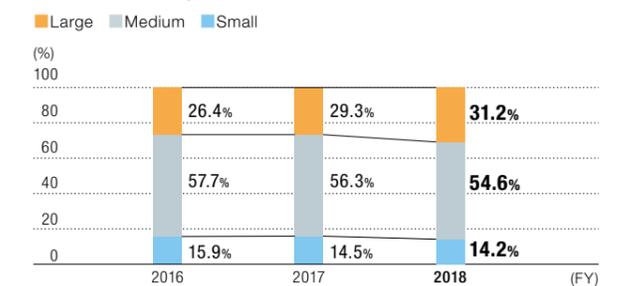
In Japan, we mainly accelerated installations of LUMIPULSE L2400, the large-sized model, by collaborating with the CLT business, taking advantage of the opportunity presented by moves to upgrade large testing instruments in the hospital market. As a result, the LUMIPULSE series saw a net increase in installed instruments of 30 units in the Japan market. In addition, the percentage of large instruments to total installed instruments for the entire series in Japan was 31.2%, marking a 4.8% increase over the past two years.

Overseas, we saw a number of products installed in Europe as well as Asia, including China and India. This resulted in a net increase in installed LUMIPULSE series products of 117 units.

#### Expand OEM/Raw Materials Supply Business

The OEM/raw materials supply business saw net sales increase 852 million yen to 16,304 million yen thanks to normal business growth as well as some sales planned for fiscal 2019 that were brought forward. With an eye on the future growth of the OEM business, we will promote the necessary capital investments and recruitment of talent.

#### Breakdown of LUMIPULSE Series Instruments Installed in Japan



### Plan for Fiscal 2019

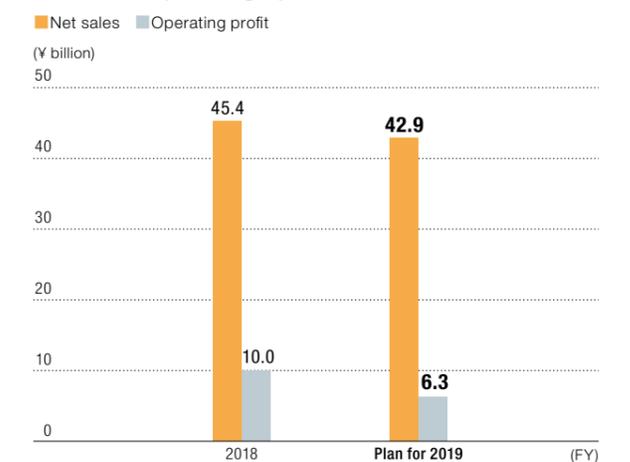
In the LUMIPULSE business, we will continue to focus on business growth both inside Japan and overseas. This includes development and launch of new reagents, promotion of packaged proposals with the CLT business, and sales expansion of LUMIPULSE in the China market through our joint venture with Ping An Insurance Group.

As for the LUMIPULSE business in Japan, in fiscal 2019, we expect to see a drop in sales of around 4,000 million yen and in profits of around 3,000 million yen over the previous year due to the completion of the agreement with the Japanese Red Cross Society for product sales and other factors. Following the completion, we will reallocate personnel toward reinforcement of our business in Japan and the pharmaceutical registration functions needed to speed up overseas expansion.

In the OEM/raw materials supply business, we expect to increase the workforce at our subsidiaries in

the United States and Europe and outlay upfront costs as capital investments, aimed at further growth.

#### Net Sales/Operating Profit



\*Figures are for new business segment

## Sterilization and Related Services (SR)



The Sterilization and Related Services business provides a host of services that help to make hospital operations more efficient and support operational improvements by aiding surgery work and endoscopic rooms and product sales for existing customers (SPD\*), with a focus on sterilization services for medical devices and equipment inside and outside hospitals.

### Results for Fiscal 2018

We decided to establish Sterilization and Related Services, which had been a part of the Healthcare Related Business segment, as an independent segment beginning in fiscal 2019, given the size of its sales and expectations for steady growth in the future.

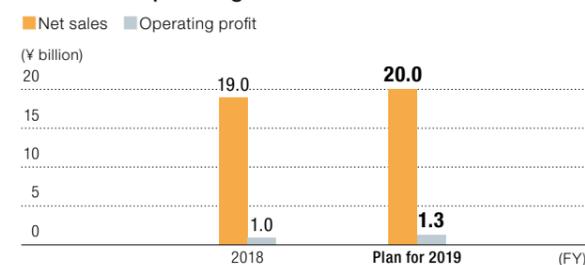
Net sales totaled 18,965 million yen (up 2.9% over the previous year) driven by the increase in sales from SPD operations and others. However, operating profit declined year over year owing to rising payroll costs.

### Plan for Fiscal 2019

We will realize sales growth by providing overall solutions with respect to challenges medical institutions are facing, with a focus on not only operating rooms but also central supply departments, while also enhancing our sterilization operations, which have long been a core service.

In addition, we will aim to increase profitability and make fundamental improvements to our labor-intensive business structure, by promoting the establishment of sterilization centers outside of hospitals and the automation of operations.

#### Net Sales/Operating Profit



\*Figures are for new business segment

\*SPD: Supply, Processing, Distribution

## Emerging New Business and Others (ENB)



The Emerging New Business segment engages in business outside of the clinical testing field, including Food, environment, cosmetics testing, Home-visiting and welfare, CRO (Contract research organization), Self-medication, services through corporate health insurance associations, among others.

### Establishment of the Emerging New Business Segment

The Miraca Group has mainly engaged in businesses centered on clinical testing in healthcare domains covered by public health insurance. Starting from fiscal 2019, we will speed up our development of new

businesses, given the correlation with our long-standing expertise, technology and know-how as well as the growth potential of and changes in markets.

### Plan for Fiscal 2019

We have re-entered the Food, environment, cosmetics testing business as a domain where we can apply the Group's strengths of technology and know-how. We newly established Miraca Vitas, which commenced operations in June 2019.

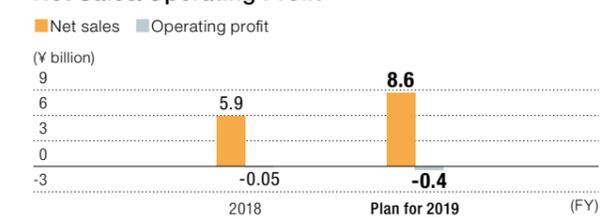
To address such market changes as differentiation of medical care functions, promotion of community-based integrated care systems, and expanding in-home healthcare services, we launched a Home-visit nursing business under the brand named star-Q in October 2018. Looking ahead, we will accelerate business expansion in this domain by opening new offices.

In addition, we will reinforce the CRO business by investing in structural improvements that address the

needs of customers.

Furthermore, we will expand into the wellness and pre-symptomatic illness domains. We will also aim for growth by harnessing group synergies with the CLT business and customer base of Selmesta, which we acquired in February 2019.

#### Net Sales/Operating Profit



\*Figures are for new business segment

# Corporate Governance



## Basic Approach to Corporate Governance

We in the Miraca Group bring about greater managerial efficiency based on our stated Mission to “Create new value in Healthcare and contribute to the prosperity of people,” along with our Vision and Values. We fully recognize the vital importance of cooperation encompassing

a wide range of stakeholders both inside and outside the Group. Accordingly, we are committed to the establishment of a corporate governance structure that encourages greater managerial transparency and accelerates proper decision-making.

## Corporate Governance Structure

### Overview of our corporate governance structure and the reason for its adoption

We fully recognize the importance of strong and thorough corporate governance, and are committed to the establishment of a governance structure that encourages greater transparency and accelerates proper decision-making at all levels of oversight, management and operation.

Following the adoption of a “company with committees” Japanese corporate governance system on June 27, 2005, the Company transitioned to a pure holding company structure that performs centralized oversight of the Group as of July 1, 2005. We adopted this management configuration with the aim of achieving clear separation of oversight and executive functions, while establishing an implementation structure capable of making decisions with greater speed and enhancing oversight of Group companies. In accordance with laws and ordinances, we have established three committees: the Nominating, Audit and Compensation committees.

At the Board of Directors meetings, board members receive reports from each committee and from the executive officers providing information on current corporate operations and target management achievements. The Board of Directors is thus able to provide timely comprehension and oversight of corporate management information. Among the seven

members of the Board of Directors, five are outside directors, each of whom is recognized as a leader in his or her respective field.

### The Board of Directors and appointment of directors

The Company appoints candidates for outside directors from the perspective of their: 1) capacity to manage based on knowledge and experience in wide ranging fields outside the scope of business experience gained within the Company, 2) due recognition of the role management should play in society, while not placing disproportionate emphasis on interests of management or certain stakeholders, and 3) ability to properly oversee the management in the execution of its duties. Moreover, the Company appoints candidates for outside director primarily from a wide range of fields, as follows:

- Experience as managers of operating companies;
- Experts in public administration in the fields of medical services, insurance, etc.;
- Experts in corporate and business law, corporate accounting and corporate finance;
- Experts in providing advice and support to corporate management; and
- Experience as managers of global business operations.

The Company appoints as candidate for outside director those who have been nominated by the

Nominating Committee upon having determined that they have the aforementioned experience, while also showing that they are capable of maintaining independence from management and possess character and insights befitting an outside director.

The Company appoints as candidate for internal director those who have been nominated by the Nominating Committee on the basis of the criteria listed below:

- Possess expertise related to the Company’s business operations;
- Exhibit outstanding capabilities for making business decisions and management execution;
- Exhibit outstanding capabilities in terms of leadership, decisiveness, foresight and planning; and
- Possess character and insights befitting a director.

As a basic rule, a majority of the Company’s directors are to be outside directors with high independency. The Company deems that no more than ten directors should serve on the Board of Directors in order to ensure lively and substantive discussion.

### Governance structure

Outside directors are nominated to chair our Nominating Committee, Audit Committee, and Compensation Committee. Outside directors account for a majority of the members on each committee, with our Audit Committee in particular comprised entirely of outside directors.

The Audit Committee consists of three committee members and one secretariat. Each committee member participates in major meetings of the Board of Executive Officers and Risk Management Committee, or otherwise confirms content of the meetings. Each member also holds a regular liaison conference with the Internal Audit Department and auditors of the relevant subsidiaries and directly conducts audits on the execution of duties as necessary, and the results of such activities are regularly reported to the Board of Directors. The Audit Committee exchanges ideas regularly with the Accounting Auditor

by requesting auditors to explain and report the initial audit plan, status of audits during the term and results of the year-end audit.

Futomichi Amano, who is the chairman of the Audit Committee, is a qualified certified public accountant who has considerable knowledge when it comes to financial affairs and accounting.

### Matters regarding ensuring appropriate execution of business operations of the corporate Group

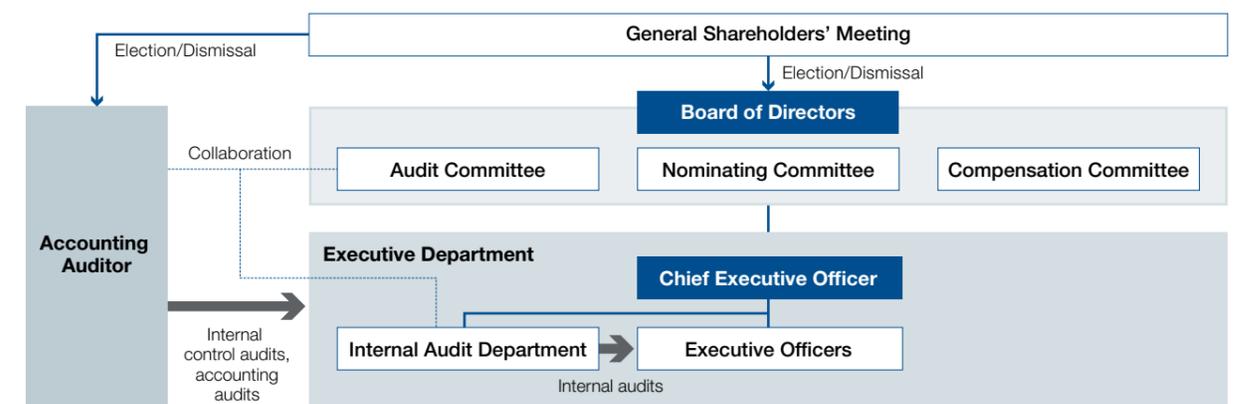
We ensure subsidiaries execute business operations appropriately by administering and managing subsidiaries pursuant to the management rules of the subsidiaries and affiliates and agreement on responsibilities and authorities of the officers of the subsidiaries.

In addition, we have established a management structure with the following framework to ensure the appropriate execution of business operations by the corporate Group:

- The structure covers the Company and its principle operating subsidiaries;
- The objective is the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with laws and regulations related to business activities;
- Promote risk management for the entire corporate Group based on the Risk Management Rules;
- Prepare a flowchart for principal operational processes including subsidiaries to standardize operations and carry out appropriate responses to risks;
- Internal Audit Department will conduct audits for the internal control system.

The Internal Audit Departments of the Group companies report and exchange opinions on a regular basis and hold an audit liaison conference regularly in order to enhance cooperation between the Audit Committee and auditors of the Group companies.

### Corporate Governance Structure



**Matters regarding management of risk of loss**

Based on the Risk Management Rules and Rules for the Risk Management Committee, a risk management system shall be established, and the Risk Management Committee shall promote it to manage the risk of loss.

**Matters regarding compliance**

The Internal Audit Department conducts internal audits of the Company and its major subsidiaries and assesses internal control independently on a regular basis in order to ensure legality, accuracy and efficiency of management and business operations. The Department reports the

audit results and status of follow-up to the Board of Directors and the Audit Committee.

Meetings of the Code of Conduct Committee are held regularly, in accordance with the Miraca Group Code of Conduct. As part of its efforts to develop an internal reporting system, the Company has established the Miraca Group Hotline to report ethics and compliance concerns, and shares information regarding its operations with the Audit Committee. In addition, the Company also raises awareness of its rules for ensuring confidentiality of those reporting concerns and furthermore prohibiting disadvantageous treatment of such individuals.

**Evaluating the Effectiveness of the Board of Directors**

The Board of Directors considers it important to adopt a third-party perspective in its processes for evaluating its own effectiveness, and this evaluation process is carried out once a year in order to verify said effectiveness. As such, in fiscal 2018, it brought on board an independent, third-party organization to serve as an advisor in performing evaluations related to a number of different matters. Said matters include the composition of the Board of Directors; its effectiveness (including monitoring how it carries out work); the effectiveness of the Nominating, Compensation, and Audit committees; the management of the Board of Directors, structures related to support and coordination by outside directors; and relations with shareholders and other stakeholders.

The evaluations were carried out by ensuring impartiality by following a process of having seven directors respond to questionnaires and having a third-party organization tabulate and analyze the responses under conditions in which anonymity was guaranteed.

The evaluation results were discussed in May 2019 by every member of the Board of Directors, and efforts were made to deepen understanding regarding the Board's strengths and to share information regarding its effectiveness, the roles it should play, and coordination with how it carries out its work. Moving forward, we plan to continue making improvements based on discussions at the Board of Directors meeting in an effort to further improve its functionality.

**Status in fiscal 2018****Addressing the Corporate Governance Code**

We do not implement "Principle 2-6 Roles of Corporate Pension Funds as Asset Owners" of Japan's revised Corporate Governance Code published on June 1, 2018.

In April 2019, we introduced a lump-sum retirement benefit program and defined contribution pension plan, while moving our previous defined benefit plan to a closed corporate pension fund. As the administrator of the corporate pension plan, we ensure the plan is operated using an appropriate structure and we have

established venues for periodic reporting of asset management results. However, decisions on the selection of investment targets and the exercising of voting rights is entrusted to an investment institution, and given our awareness that engagement is an issue in terms of stewardship, we provide an explanation regarding our non-compliance with this principle.

Miraca Holdings complies with all other principles of Japan's Corporate Governance Code.

**Reason for the selection of outside directors**

We have five outside directors at our company.

Shigehiro Aoyama has been involved in the management of Suntory Holdings Limited over a long period of time, and offers invaluable advice to our company based on his wealth of experience and widespread knowledge on corporate management cultivated through this. As such, we determined that he is qualified to serve as an outside director.

Futomichi Amano has been involved in auditing as a certified public accountant and the management of Deloitte Touche Tohmatsu LLC for a long period of time. He is an expert with a wealth of knowledge on accounting cultivated from this that he offers for the management of our company. As such, we determined that he is qualified to serve as an outside director.

Miyuki Ishiguro is a partner at the law offices of Nagashima, Ohno & Tsunematsu. She is an expert that can offer her opinions to our management team from her perspective as a lawyer who is well-versed in corporate legal affairs. As such, we determined that she is qualified to serve as an outside director.

Ryoji Itoh is a professor who teaches governance and media studies at a graduate school. He is also an expert who offers his knowledge cultivated through his wealth of experience as a business consultant and

corporate manager for the management of our company. As such, we determined that he is qualified to serve as an outside director.

Susumu Yamauchi is a professor who has taught Western legal history at a university. He is also an expert who offers his wealth of experience and extensive knowledge as the President of Hitotsubashi University for the management of our company. As such, we determined that he is qualified to serve as an outside director.

**Determining the independence of outside directors**

We determine the independence of outside directors on the basis of criteria for independence established by the Tokyo Stock Exchange.

We emphasize objectivity, neutrality, and expertise in our outside directors, and recognize their role in supervision to ensure that management fairly recognizes the roles that the company plays in society and that managers carry out their professional duties in a reasonable and appropriate manner free from bias towards the interests of managers or specific shareholders. We appoint outside directors from the perspective of having them put their knowledge and experience in different fields to use in the Company's management, and expect that the aforementioned directors will play an independent role in governance.

**Compensation for Directors and Executive Officers, etc.****Policy and determination methods on amounts of compensation for directors and executive officers or calculation method thereof**

The Company, at the Compensation Committee, has established the following policies for determining compensation for respective directors and executive officers of the Company and determines the amounts and other conditions of compensation, etc. for respective directors and executive officers in accordance with these policies.

**(1) Compensation system**

Compensation for directors and executive officers of the Company will be paid in the form of fixed-amount compensation based on official responsibilities in consideration of the scope and degree of responsibility for group management and other aspects, and will not be paid in the form of retirement benefits at the time of retirement. The amount of performance-based compensation will be changed depending on business results, with net sales, operating profit, net profit and other figures employed as criteria for determining results.

Directors serving concurrently as executive officers will receive compensation as executive officers.

**(2) Directors' compensation**

Directors' compensation will be determined as nil, or as a combination of fixed-amount compensation and share-based compensation in consideration of the duties of the respective directors. Reasonable upper limits will be set for the amount of payment in light of the economic situation, the Company's conditions and the duties of the respective directors.

The Company will pay compensation to outside directors, based on the details of their supervision activities, in addition to the combination of prescribed fixed-amount compensation and share-based compensation.

**(3) Executive officers' compensation**

Executive officers' compensation will be determined in combination of fixed-amount compensation, performance-based compensation and share-based compensation in consideration of the duties of the respective executive officers. An upper limit that is considered reasonable in light of the economic situation, the Company's conditions and the duties of the executive officers will be set for the amount of payment.

### 1) Compensation system

Compensation received by directors and executive officers of the Company shall be determined by a resolution of the Compensation Committee in light of the economic situation, the Company's conditions and the duties of the respective directors and executive officers, and based on the Miraca Group Officers' Compensation Rules, Rules of Compensation for Directors Not Serving Concurrently as Executive Officers, and Rules of Compensation for Outside Directors.

Compensation for directors and executive officers consists of basic compensation which is fixed monetary compensation; restricted stock compensation, which is fixed stock compensation; performance-based compensation, in which the monetary compensation fluctuates in accordance with the degree of progress towards achieving performance targets over the short term; and trust-type share-based compensation, which is stock compensation linked to performance targets over the medium- to long-term. The breakdown of standard compensation ratios by titles is generally as follows.

Title	Fixed compensation		Short-term performance-based compensation	Medium- to long-term performance-based compensation
	Monetary	Shares	Monetary	Shares
	Basic compensation	Restricted stock compensation	Performance-based compensation	Trust-type share-based compensation
President and CEO	0.44	0.11	0.22	0.23
Executive officer	0.56–0.66	0.07–0.09	0.20–0.23	0.07–0.13
Director (excluding directors serving concurrently as executive officer)	1.00	0.00	0.00	0.00

### 2) Basic compensation

Although the benchmark for compensation is their titles, compensation is paid to executive officers after taking into account how each of them has performed in his or her duties, etc. In addition to the prescribed fixed compensation, compensation is paid to directors in accordance with the details of their supervisory activities.

### 3) Restricted stock compensation

As well as providing an incentive to seek sustainable improvements in the Group corporate value, restricted stock compensation is provided to directors to further promote shared value with shareholders.

#### (1) Overview of restricted stock compensation scheme

- The Company grants monetary compensation claims to its executive officers, and the executive officers use these monetary compensation claims in their entirety to make an investment in kind in the Company, and are in turn issued with common shares of the Company (restricted stock).
- The amount of monetary compensation claims granted to each executive officer is determined by the Company's Compensation Committee. In addition, the details of issuance of restricted stock, etc., are determined by the Company's Board of Directors.
- The amount paid in per share of restricted stock is based on the closing price for the common shares of the Company on the Tokyo Stock Exchange on the business day before the day of the Board of Directors' resolution in relation to the details of the issuance of restricted stock, etc. (in the event that no transactions were made on that day, the closing price on the most recent transaction day), and is determined by the Board of Directors of the Company within a range that does not offer a particularly advantageous amount to the executive officers receiving the stock.

#### (2) Main features of the restricted stock allotment agreement

When issuing restricted stock, the Company and the executive officers of the Company enter into a restricted stock allotment agreement. The main features of the agreement are as follows:

- Executive officers of the Company shall not, for a period of three years from the day on which they receive an issuance of restricted stock (hereafter, "the restricted period"), transfer, create a security interest on, or in any other way dispose of the restricted stock they have been allocated.
- In the event that certain grounds arise, the restricted stock allotted to the executive officers shall be acquired by the Company without contribution.
- In order to prevent the transfer, creation of security interest, or disposal in any other way of the restricted stock allocated to executive officers of the Company, during the restricted period the restricted stock shall be managed in dedicated accounts, opened by the executive officers, at a financial instruments business operator designated separately by the Company.

### 4) Performance-based compensation

In terms of short-term performance-based compensation, performance-based compensation shall be paid based on single-year performance, and on individual evaluation.

Evaluation of single-year performance will be based on the consolidated performance of the Group, but

performance-based compensation for the executive officers in charge of domestic CLT and the IVD shall also take into account the evaluation of domestic CLT segment and IVD segment performance, respectively. The breakdown of performance-based compensation by titles is as follows.

Title	Performance evaluation items			Individual evaluation <sup>2</sup>
	Single-year performance <sup>1</sup>			
	Consolidated group performance	Domestic CLT segment performance	IVD segment performance	
President and CEO	100%	—	—	—
Executive officers (excluding executive officers in charge of CLT and IVD)	80%	—	—	20%
Executive officer in charge of CLT	40%	60%	—	—
Executive officer in charge of IVD	40%	—	60%	—

<sup>1</sup> With regard to "single-year performance" among performance evaluation items, because net sales growth is a priority issue under the current Medium-term Plan the emphasis is on year-on-year growth rate in net sales. They also take into account the degree of progress towards targets for profit and operating profit, with a view to promoting management that is aligned with shareholder interests, in respect of which performance evaluation indicator for "single-year performance" has been set as follows. The setting of specific criteria for evaluation, changing of those criteria, and determining performance-based compensation shall be resolved by the Compensation Committee.

<sup>2</sup> With regard to "individual evaluation" among performance evaluation items, the President and CEO will conduct a comprehensive evaluation of the status of execution of each executive officer's duties on a person-by-person basis and then create a draft proposal, with the Compensation Committee determining compensation within a range fluctuating from 0% to 200% of the standard payment amount for each title.

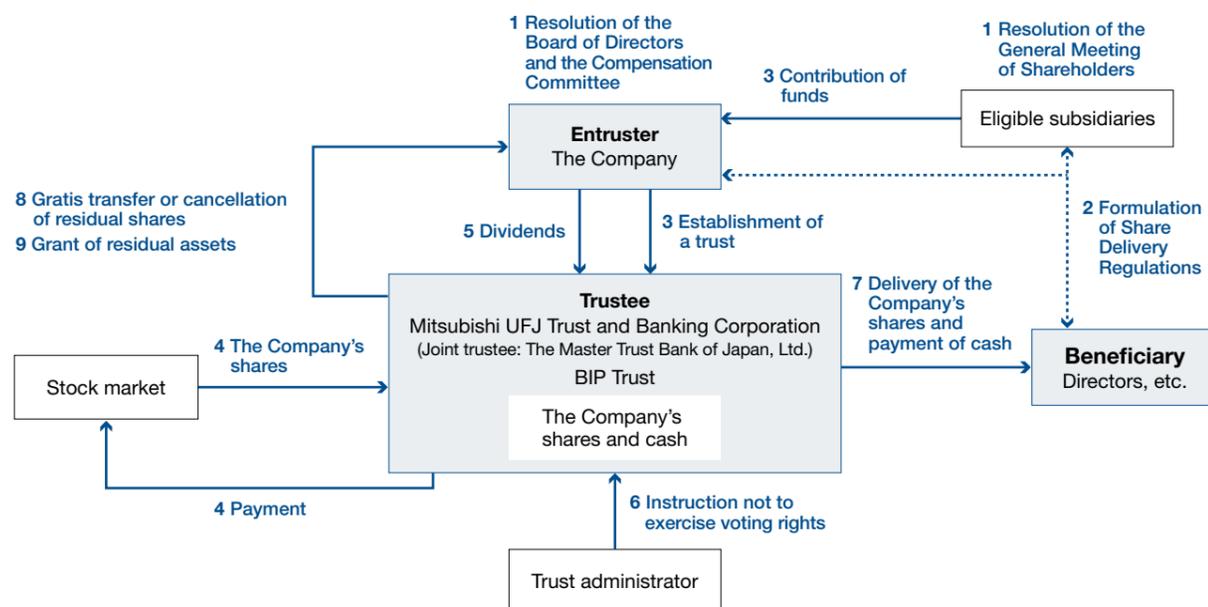
Performance evaluation items	Performance evaluation indicator	Weight	Targets	Range of variation in payment
Consolidated group performance	Consolidated net sales	70%	Year-on-year growth rate	0%–200%
	Consolidated profit	30%	Absolute amount stipulated in advance	0% to no upper limit
Domestic CLT segment performance	Domestic CLT net sales	70%	Year-on-year growth rate	0%–200%
	Domestic CLT operating profit	30%	Absolute amount stipulated in advance	0% to no upper limit
IVD segment performance	IVD net sales	70%	Year-on-year growth rate	0%–200%
	IVD operating profit	30%	Absolute amount stipulated in advance	0% to no upper limit

Note: With regard to net sales indicators, if targets are 100% achieved then 100% of the standard amount will be paid, so that it fluctuates by 0% to 200%. With regard to profit and operating profit indicators, if targets are 100% achieved then 100% of the standard amount will be paid, fluctuating from 0% upwards, with no upper limit.

### 5) Trust-type share-based compensation

By linking compensation for executive officers of the Company to the degree of progress towards targets set out in the Medium-term Plan, the Company aims to raise

awareness of the need to contribute to improving performance over the medium- to long-term and enhancing corporate value, to which end it will provide trust-type share-based compensation.



- The Company has obtained approval from the Board of Directors and the Compensation Committee for the introduction of the trust-type share-based compensation scheme and the compensation for directors and executive officers.
- In relation to the introduction of the trust-type share-based compensation scheme, the Company has formulated "Share Delivery Regulations" regarding compensation for directors and executive officers at a meeting of the Compensation Committee.
- The Company shall combine a sum of money, the value of which is within a range approved by a resolution of the Compensation Committee, with the monetary contributions received from each eligible subsidiary and entrust this to a trust bank (the "Trustees") in order to set up a trust ("the Trust"), the beneficiaries of which shall be directors, etc. of eligible companies (including executive officers of the Company; hereinafter the same shall apply) who satisfy the requirements for beneficiaries.
- The Trustees of the Trust have, in accordance with the instructions of the trust administrator, obtained the Company's shares from the stock market using the money contributed as in 3 as funds.
- Dividends shall be paid in relation to the Company's shares held within the Trust in the same way as for other shares of the Company.

- For the Company's shares held within the Trust, voting rights shall not be exercised through the trust period.
- During the trust period, a certain number of points shall be granted to directors, etc., in accordance with their titles and the degree of progress towards performance targets. For directors, etc. who satisfy a certain level of beneficiary requirements, shares of the Company, or the amount of money equivalent to the converted value of the shares of the Company, shall be delivered or provided in accordance with the number of points granted.
- In the event that residual shares remain at the expiry of the trust period due to performance targets not being achieved or for some other reason, the Trust shall either continue to use them for a new stock compensation scheme as a result of a change in the trust agreement or additional trusts being made, or the Trust shall transfer the residual shares to the Company without contribution, after which acquisition, it is expected that they will be canceled by a resolution of the Board of Directors.
- When the Trust comes to an end, any assets remaining after distributions to beneficiaries are expected to be vested in the Company (which is the holder of vested rights), within the scope of the reserve for trust expenses, which are calculated by deducting funds to purchase stock from trust money.

### (1) Overview of the trust-type share-based compensation scheme

As is the case with the performance-linked share-based compensation seen in the U.S. and Europe (performance shares), the trust-type share-based compensation is a scheme in which the shares of the Company or the amount of money equivalent to the converted value of the shares of the Company are delivered or provided, in accordance with their titles and the degree of progress towards performance targets.

### (2) Number of shares to be delivered, etc. (including shares that are subject to conversion)

In principle, on June 1 for each year during the trust period, a certain number of points shall be granted to the executive officers of the Company in relation to the fiscal year that ended on March 31 of that year. The number of points shall be determined based on the individual's title and the degree of progress towards consolidated net sales and consolidated operating profit targets for each fiscal year of the Medium-term Plan. Around the month of July after the ending of the target period (for the first time, this will be around July 2020), the number of shares, which is the basis for delivery, etc. of the Company's shares, etc., shall be determined based on

the total number of points for the three years (hereinafter, "stock delivery points"). The number of shares of the Company per point shall be one (1).

### (3) Number of points granted per year

The method used to calculate the number of points granted per year is as follows.

#### Calculation formula

Points granted (per year) = Standard points<sup>1</sup> × Performance-linked coefficient

Performance-linked coefficient = Granted percentage for consolidated net sales<sup>2</sup> × 0.7 + Granted percentage for consolidated operating profit<sup>2</sup> × 0.3

Note: The objectives of the Company's current Medium-term Plan are "growth in net sales," and "expansion of profits in existing businesses driven by growth in sales," and consolidated net sales and consolidated operating profit are used as indicators to show the degree of progress towards these objectives. Moreover, taking into account the recent business environment and the conditions in which the Group operates, the term of the current Medium-term Plan has been positioned as a period for concentrating on initiatives to grow sales, which explains the setting of the performance-linked coefficient laid out above.

<sup>1</sup> "Standard points" are calculated by dividing the standard amount of trust-type share-based compensation determined for each title, by the closing price of 5,010 yen on the day before July 21, 2017, the date on which the Compensation Committee resolved the details of the trust-type share-based compensation scheme.

<sup>2</sup> Based on the "Share Delivery Regulations" set out beforehand as they relate to trust-type share-based compensation, the granted percentage is determined by dividing the consolidated group results for each fiscal year by the consolidated targets for each fiscal year of the Medium-term Plan.

### (4) Conditions for delivering shares/providing money

In the event that executive officers of the Company meet the conditions laid out below (hereinafter, "share delivery conditions"), the right to receive delivery of shares of the Company or provision of the proceeds of selling such shares, shall be settled on the record date for beneficial rights prescribed in the "Share Delivery Regulations."

Conditions for delivering shares	
1	Cases where for the duration of the target period, the individual continuously holds the position as either a director (excluding outside director), an executive officer of the Company, or as a director (excluding outside director) of a domestic subsidiary of the Company (hereinafter "eligible officers")
2	Cases where, during the target period, the eligible officer resigns from the position for reasons such as the expiry of his or her term, retirement, or some other justifiable reason
3	Cases where the individual dies during the target period
4	Cases where the individual becomes a non-resident of Japan during the target period
5	Cases where, at the time the scheme is abolished, the individual is serving in any of the positions of an eligible officer

However, in cases where executive officers of the Company fall under any of the following categories before the record date for beneficial rights, or in any equivalent cases, the delivery of shares of the Company or the provision of proceeds of selling such shares, in accordance with the trust-type share-based compensation scheme, shall not be carried out.

Details	
1	Cases where there have been material violations of the individual's responsibilities as an executive officer, or material violations of internal rules
2	Cases where the individual resigns from any and all the positions of the eligible officer regardless of the will of the Company, or for personal or some other unjustifiable reason (however, they shall exclude situations caused by unavoidable circumstances, such as sickness)
3	Cases where the individual is dismissed due to behavior corresponding to a reason for the dismissal of an executive officer
4	Cases where the individual takes up work at a competitor without the approval of the Company

### Persons with decision-making authority in relation to policy for determining the amount of compensation for directors and executive officers or calculation method thereof

Because the Company is a "Company with Nominating Committee, etc." under the Companies Act, it has set up a Compensation Committee as an organization based on the Companies Act, in which the committee chair is an outside director, and outside directors form a majority of committee members.

#### A. Details of the Compensation Committee's authority and scope of discretion

The Compensation Committee determines the amount of compensation, etc. for executive officers and directors of the Company based on laws and regulations, the Articles of Incorporation and relevant rules of the Company.

#### B. Details of Compensation Committee activities during the process of determining compensation, etc. for directors and executive officers in the fiscal year under review

The Compensation Committee met at a frequency of about once every two months during the fiscal year under review. On June 22, 2018 the Compensation Committee

unanimously passed a resolution approving "the Miraca Group Officers' Compensation Rules," and the determining amounts for basic compensation of different individuals.

Next, in relation to restricted stock compensation, the Committee unanimously passed a resolution on July 20, 2018 approving amounts to be granted to different individuals, and the number of shares to be allotted, in accordance with "the Miraca Group Officers' Compensation Rules."

Moreover, in relation to trust-type share-based compensation, the Committee unanimously passed a resolution on November 30, 2018 approving points to be granted to different individuals in relation to results for the previous fiscal year, in accordance with "the Miraca Group Officers' Compensation Rules" and achievement ratios of the performance achievement indicators.

With regard to performance-linked compensation, the Committee unanimously passed a resolution on May 14, 2019 approving payment amounts for different individuals, in accordance with "the Miraca Group Officers' Compensation Rules" and achievement ratios of the performance achievement indicators.

In addition, all resolutions of the Compensation Committee are made after excluding any persons having a relationship of special interest.

achieve technological development before us. Furthermore, there may be instances where we must give up on research and development due to reasons such as not fulfilling the required standards for drug approval in terms of efficacy and safety during the research and development process. This could result in the inability to recover the costs associated with this research and development or could force changes in our research and development policy.

#### 2) Intellectual property risks

The Group's products are protected for a certain period by multiple patents for substances and manufacturing method. The Group appropriately manages its intellectual property rights including patent rights, and constantly keeps watch for infringements by others. The Group's intellectual property management functions are consolidated at the Company to reinforce our management structure, including enhancing specialization.

However, if our intellectual property rights are infringed upon by a third party, the expected profits may be lost. In addition, if one of the Group's products infringes upon the intellectual property rights of another party, we could be required to pay damages.

#### 3) Impacts caused by changes in market environment

As Japan's medical system continues to undergo major reforms, the Group's business climate is becoming increasingly severe due to competition from other companies in the market and other factors. The Group continues to gather information on markets and competitors as well as conduct analysis and evaluation. This information is utilized for measures to reinforce the competitiveness of existing businesses and for the expansion of new businesses. Changes in business climate as well as stricter policies in each country for curtailing medical spending, and stricter regulations related to development, manufacturing and distribution, influence market prices and this trend is expected to continue going forward. As a result, the Group's business performance and financial condition could be adversely affected.

#### 4) Statutory regulation risks

The Group's business activities abide by the Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices and other relevant laws in Japan and the statutory regulations of the FDA and others outside of Japan. The Group strives to constantly and actively gather information on revisions to these laws and regulations and examines timely countermeasures. Future revisions to laws or stricter regulations could restrict the Group's business activities or increase costs related to business administration.

#### 5) Risks related to overseas business expansion and foreign exchange rate volatility

The Group actively engages in business not only in Japan, but also North America, Europe, Asia and other regions. As a result, our overseas business operations occupy a growing strategic importance, which increasingly exposes us to the impacts of foreign exchange rate volatility.

To address foreign exchange rate volatility, we rationalize our holdings of foreign currency and implement some measures to maintain a balance of foreign currency denominated assets and liabilities to minimize foreign exchange gains or losses. These measures do not guarantee that we will avoid all foreign exchange rate volatility risks and there is a possibility our business performance, assets, liabilities, and net assets could be adversely affected by foreign exchange rates.

In addition, local business sites and the Company's departments in charge of these sites work together to ensure immediate responses are possible by regularly gathering information on market changes in these overseas regions, economic downturns, policy changes,

invocation of economic sanctions, labor issues, cultural and business practice differences, other political and social factors, industrial base vulnerability, public hygiene issues, changes in laws and regulations, changes in tax systems, terrorism and conflicts, pandemics, and disasters. If these events were to occur, they could have an adverse affect on our business performance.

#### 6) M&A risks

The Group considers and executes M&A deals in the fields of its existing businesses both inside and outside Japan as part of its growth strategy to enhance corporate value.

When executing M&A deals, each operating company along with the Company's specialized departments investigate and consider profitability and investment recoverability in advance. The Company also seeks the advice of outside experts such as lawyers and accountants when needed.

However, there is a possibility the acquired business does not achieve the expected targets due to sudden changes in business climate or unforeseen circumstances post acquisition, which could have an adverse affect on the Group's business performance and financial condition.

#### 7) Accuracy control risks

The Group's accuracy controls are an extremely important element for maintaining the accuracy of testing results. The Group's primary CLT business companies participate in surveys of the Japan Medical Association, Japanese Association of Medical Technologists, Japan Registered Clinical Laboratories Association, and other public institutions to ensure thorough accuracy controls. In addition, the Company is focusing on establishing an internal structure, including acquiring certification for the service mark of the Japan Health Enterprise Foundation, College of American Pathologists (CAP), Clinical Laboratory Improvement Amendments (CLIA), and ISO 15189. The Company strives to prevent mistakes in the CLT business by developing a structure that can quickly identify events and consider the causes and countermeasures, as well as thoroughly improving procedures, implementing automation and providing employee training.

However, if appropriate testing is not possible due to human error or unforeseen circumstances, the Group's business performance could be adversely affected due to declining test accuracy and loss of credibility.

#### 8) Risks concerning information handling and information systems

The Group retains vast quantities of personal information on patients as well as their testing data. As a result,

## Business Risks

Among the matters related to the conditions of business and the status of accounting, etc., which have been stated in the Annual Securities Report, the following matters may substantially affect the judgment of investors.

Furthermore, forward-looking statements appearing below are based on information available to the Group as of March 31, 2019.

#### 1) Research and development risks

The Group continuously invests in research and development for the efficient and prompt development of new products and new technologies. Therefore, we established Miraca Research Institute G.K., where we have streamlined and sped up basic research activities and centralized the handling of information. In addition, we actively gather information on market trends and technological developments by participating in academic societies inside and outside of Japan along with incorporating the views of third parties as needed. Also, we are reinforcing our management system by conducting periodic reviews of the progress of research and development internally. However, the possibility exists that the expected outcomes will not materialize fully or in a speedy manner, or that competitors may

ensuring the security of this information and building a structure for compliance with Japan's Personal Information Protection Act are considered important tasks of management. As part of these efforts, SRL acquired privacy mark certification in February 2005. In addition, we have acquired ISMS and ISO/IEC 27001 certification as security countermeasures for information systems. The Group also utilizes multiple information systems for the execution of business and strives to operate these systems in a stable manner. This includes building information systems that help to prevent information leakages, including modifying and upgrading aging systems, etc., and making operational rules known to all.

However, if these information systems do not operate normally due to software or hardware problems, human errors, disasters, criminal activities, cyberattacks, computer virus infiltration, or terrorism, resulting in the leak of personal information, large-scale stoppage of services, wrongful billing, delayed test reports, or loss of data, it could cause a loss of the credibility of the Group and its products and services, and as a result, adversely affect the Group's business performance.

The Group develops its own information systems for business execution. Efforts are being focused on reinforcing project management, including obtaining outside evaluations by a third-party as needed for system development. If progress of development plans is delayed, if development costs rise, or if the planned functions cannot be achieved, the Group's business execution could be inhibited, and the costs of development may not be recovered.

### 9) Risks of impairment accounting

The Group owns tangible and intangible fixed assets including goodwill as well as investment securities. Impairment will be required in case the value of these assets declines or if the expected future cash flows are likely not to materialize. This could adversely affect the Group's business performance and financial condition.

### 10) Risks related to the recoverability of deferred tax assets

The Group has recorded deferred tax assets related to loss carried forward and deductible temporary differences, and the recoverability of which is evaluated. The calculation of deferred tax assets is based on various forecasts and assumptions including estimates of taxable income pursuant to the business plan covering a certain period in the future. Actual results may vary from these forecasts and assumptions. If these estimates need to be reviewed due to the level of achievement of the business plan or other factors and there are reasons present that will make it impossible to recover deferred tax assets,

deferred tax assets will need to be reversed and tax expenses booked, which could adversely affect the Group's business performance and financial condition.

### 11) Impacts due to the stoppage of or constraints placed on business activities due to disasters or accidents

The Group has established a business continuity plan (BCP) and allocated emergency-use facilities and stockpiled supplies in preparation for a large-scale disaster. The Group's business performance could be adversely affected in the event the Group's business sites or its customers such as medical institutions suffer damage from a large-scale typhoon, earthquake or other natural disaster that impede their operations. In addition, the Group's business performance could also be adversely affected by fires, labor disputes, or facility accidents resulting in the stoppage of, or constraints placed on, its business activities.

### 12) Risks associated with the execution of management strategy

The Company formulated a Medium-term Plan spanning from fiscal 2017 (the fiscal year ended March 31, 2018) to fiscal 2019 (the fiscal year ending March 31, 2020), after fundamentally reviewing the growth strategy and regional strategy of each business based on priority consideration of measures contributing to significant and sustainable future growth, considering changes in the business climate. Under this Medium-term Plan, the Group aims to realize dramatic medium- to long-term growth by reinforcing existing businesses, enhancing R&D, strengthening the overseas strategy, and promoting an alliance strategy. The progress of the Medium-term Plan is presented in "Special Feature 1 Progress of the Medium-term Plan."

However, the targets set for each fiscal year during the term of this Medium-term Plan represent future forecasts expressing the Company's management targets. The ability of the Group to implement these initiatives and achieve these targets could be affected by the risks outlined in 1) to 11) above, and uncertainty, especially greater than expected competition and declining market prices as a result, failures of research and development investments, changing customer needs, poor performing alliances, greater than expected changes in medical systems in Japan and overseas, as well as the emergence of risk concerning overseas business expansion and foreign exchange rate volatility.

## Risk Management Structure

Risk is managed according to a uniform policy that applies to the entire Group as defined in the risk management structure within the Risk Management Rules.

The Risk Management Committee was established with the purpose of promoting risk management for the Company and the entire Group. The committee is chaired by the CFO and comprises executive officers excluding the President and Group CEO as members. It meets at least annually, with the results reported to the Board of Directors. The committee's detailed activities include:

- (1) Centralized oversight of the risk management of each Group company;
- (2) Identification of risks facing the entire Group and risks pertaining to the misconduct of management, as well

as management of control execution;

- (3) Identification of risks that should be disclosed and management of control execution; and
- (4) Matters concerning the risk management of the Company.

The Company and its Group companies also conduct risk management through the Risk Management Committee or Executive Committee. This process involves risk identification, categorization of company-wide or business process risks, risk analysis and evaluation based on the possibility and degree of impacts, and risk response. Specifically, risks are managed using a Risk Control Matrix (RCM) and reported at least annually to the Risk Management Committee.

## Securing Shareholder Rights and Equality

We implement the following measures to secure the rights of our shareholders and ensure that they can properly exercise said rights at regular general meetings of shareholders.

- (1) To ensure that our shareholders can properly exercise their voting rights, we send convocation notices and attached documents three weeks prior to regular general meetings of shareholders. Ahead of this, we electronically disclose said materials on the website of the Tokyo Stock Exchange and our own website. We also disclose English versions of the convocation notice together with this.

- (2) The schedule for general meetings of shareholders is set by avoiding busy dates on which many companies hold meetings to limit disruptions. In addition, we have adopted an electronic voting system and provide detailed e-voting guidance in convocation notices.

For shares held as part of cross-shareholdings by Miraca or our Group companies, we confirm their consistency with our strategic objectives based on the results of assessments performed by our Board of Directors on each company share held. We have not adopted any anti-takeover measures.

## Dialogue with Shareholders

For institutional investors and analysts, the Company holds financial results briefings after the first half and at the end of each fiscal year and holds conference calls during the first and third quarters.

The Company actively engages with investors through investor relations (IR) activities to build trusted relationships and mutual understanding.

In addition, we identify the composition of shareholders on the shareholder registry quarterly and outsource a survey to better understand beneficial shareholders. For our primary beneficial shareholders, the Company conducts shareholder relations (SR) activities to share the Company's management situation, and provides updates on business performance from both financial and non-financial points of view.

These IR and SR activities are promoted and overseen by the executive officer responsible for corporate communications. Requests for dialogue from shareholders and investors are handled through proactive communication by our IR/SR Department as well as through direct dialogue with the CEO and CFO. Feedback and insight obtained through dialogue are reported to executive management and the Board of Directors for further corporate value improvement, and management structure enhancement.

Furthermore, in order to earn trust and fair evaluations from equities markets, the Company has established disclosure regulations and an IR policy to avoid selective disclosure of material information.

## Director



**Shigekazu Takeuchi**

Director, President and Group CEO

1) October 11, 1953; 2) 8,759 shares; 3) 3 years;  
4) Board of Directors meetings: 100% (13/13)  
Meetings of Nominating Committee: 100% (6/6)  
Meetings of Compensation Committee: 100% (7/7)

Apr. 1976 Joined CBS Sony Inc. (current: Sony Music Entertainment (Japan) Inc.)  
Feb. 1997 President, Sony Music Artists Inc.  
Feb. 2000 Executive Vice President, Corporate Planning Department, Sony Music Entertainment (Japan) Inc.  
Jun. 2000 Managing Director, Corporate Planning Department, Sony Music Entertainment (Japan) Inc.  
Oct. 2002 President, SME Visual Works Inc. (current: Aniplex Inc.)  
Jun. 2006 Chairman, Sony Pictures Entertainment (Japan) Inc.  
Jun. 2007 Chairman, Sony Broadcast Media Co., Ltd.  
Oct. 2009 Joined Avex Group Holdings Inc.  
Jun. 2010 Representative Director, CFO, Avex Group Holdings Inc.  
Jun. 2016 Vice President & CEO, the Company  
Director, Fujirebio Inc. (incumbent)  
Oct. 2016 President & CEO, the Company (incumbent)  
Director, SRL, Inc. (incumbent)  
Apr. 2017 Director, Fujirebio Holdings, Inc. (incumbent)



**Naoki Kitamura**

Director, Executive Officer and CFO

1) November 28, 1970; 2) 4,413 shares; 3) 1 year;  
4) Board of Directors meetings: 100% (10/10)

Apr. 1993 Joined Sony Corporation  
Jun. 1996 Seconded to Sony International (Singapore) Pte. Ltd. (current: Sony Electronics (Singapore) Pte. Ltd.)  
Jul. 2004 Seconded to Sony Corporation of America  
Apr. 2008 General Manager, Corporate Planning Department, So-net Entertainment Corporation (current: Sony Network Communications Inc.)  
Sep. 2011 Joined the Company.  
General Manager, Strategic Planning Department  
Nov. 2011 Director, SRL, Inc.  
Jun. 2013 Executive Officer, the Company (incumbent)  
Feb. 2015 Chairman and CEO, Baylor Miraca Genetics Laboratories, LLC  
Jun. 2015 Chairman, Baylor Miraca Genetics Laboratories, LLC (incumbent)  
Jul. 2016 CEO, Miraca Life Sciences, Inc.  
Apr. 2017 Statutory Auditor, Fujirebio Holdings, Inc. (incumbent)  
Jun. 2017 Director, SRL, Inc. (incumbent)  
Oct. 2017 CEO, Miraca America, Inc. (incumbent)  
Director, SRL (Hong Kong) Limited (incumbent)  
Jun. 2018 Director, the Company (incumbent)



**Miyuki Ishiguro**

1) October 26, 1964; 2) 0 share; 3) 6 years;  
4) Board of Directors meetings: 100% (13/13)  
Meetings of Compensation Committee: 100% (7/7)  
Meetings of Audit Committee: 94% (17/18)

Apr. 1991 Registered as attorney-at-law (Tokyo Bar Association)  
Joined Tsunematsu Yanase & Sekine  
Jan. 1999 Partner, Tsunematsu Yanase & Sekine  
Jan. 2000 Partner, Nagashima Ohno & Tsunematsu (incumbent)  
Jun. 2006 Director, Sony Communication Network Corporation (current: Sony Network Communications Inc.)  
Jun. 2013 Outside Director, the Company (incumbent)  
Feb. 2016 Council Member of Radio Regulatory Council  
Apr. 2016 Council Member of Management Council, Hitotsubashi University (incumbent)  
Sep. 2016 Outside Corporate Auditor, Lasertec Corporation (incumbent)  
Jun. 2017 Outside Audit & Supervisory Board member, Benesse Holdings, Inc. (incumbent)  
Apr. 2018 Vice President, Tokyo Bar Association



**Ryoji Itoh**

1) January 14, 1952; 2) 200 shares; 3) 5 years;  
4) Board of Directors meetings: 100% (13/13)  
Meetings of Nominating Committee: 100% (6/6)  
Meetings of Compensation Committee: 100% (7/7)

Jul. 1979 Joined McKinsey & Company  
Jan. 1984 Partner, McKinsey & Company  
Jun. 1988 Director, UCC Ueshima Coffee Co., Ltd.  
Sep. 1990 Representative Director, Schroder Ventures  
Nov. 1997 Director, Bain & Company  
Sep. 1999 Guest Professor at Faculty of Policy Management, Keio University  
May 2000 Project Professor at Graduate School of Media and Governance, Keio University (incumbent)  
Jan. 2001 Head of Japan Office, Bain & Company  
Apr. 2006 Managing Director, Planetplan, Inc. (incumbent)  
Apr. 2010 Visiting Professor, Yokohama City University  
May 2012 Director, Renown Incorporated  
Oct. 2012 Professor (part-time), BBT University  
Jun. 2014 External Director, SATO HOLDINGS CORPORATION (incumbent) Outside Director, the Company (incumbent)

## Outside Director



**Shigehiro Aoyama**

1) April 1, 1947; 2) 0 share; 3) 1 year;  
4) Board of Directors meetings: 90% (9/10)  
Meetings of Nominating Committee: 80% (4/5)

Apr. 1969 Joined Suntory Limited  
Mar. 1994 Director, Member of the Board, Spirits Division  
Mar. 1999 Managing Director, Member of the Board, Sales Development & Marketing Promotion Division  
Mar. 2001 Managing Director, Member of the Board, Corporate Planning Division  
Mar. 2003 Senior Managing Director, Member of the Board, Corporate Planning Division  
Sep. 2005 Senior Managing Director, Member of the Board, President of Spirits, Wine & Beer Company  
Mar. 2006 Executive Vice President, Chief Operating Officer, Member of the Board, President of Spirits, Wine & Beer Company  
Feb. 2009 Executive Vice President, Chief Operating Officer, Member of the Board, Suntory Holdings Limited  
Mar. 2010 Executive Vice President, Chief Operating Officer, Member of the Board, Representative Director  
Oct. 2014 Vice Chairman of the Board, Representative Director  
Apr. 2015 Supreme Advisor  
Jun. 2015 Chairman, the Distribution Economics Institute of Japan (incumbent)  
Jun. 2016 External Director, Takamatsu Construction Group Co., Ltd. (incumbent)  
Outside Director, Fuji Heavy Industries Ltd. (current: SUBARU CORPORATION) (incumbent)  
Apr. 2018 Special Advisor, Suntory Holdings Limited  
Jun. 2018 Outside Director, the Company (incumbent)



**Futomichi Amano**

1) August 31, 1953; 2) 0 share; 3) 2 years;  
4) Board of Directors meetings: 100% (13/13)  
Meetings of Audit Committee: 100% (18/18)

Nov. 1977 Joined Tohmatsu Awoki & Co. (Current: Deloitte Touche Tohmatsu LLC)  
Jun. 1989 Promoted to Partner (Audit), Tohmatsu Awoki & Sanwa  
Nov. 1995 Transferred to Los Angeles office of Deloitte & Touche LLP  
Sep. 2002 Assumed Partner in charge of corporate planning of Tokyo office, Deloitte Touche Tohmatsu LLC  
Jun. 2004 Assumed Managing Partner of corporate planning of Tokyo office, Deloitte Touche Tohmatsu LLC  
Jun. 2007 Assumed Board member, Deloitte Touche Tohmatsu LLC  
Assumed Managing Partner of Eastern Japan & Tokyo office, Deloitte Touche Tohmatsu LLC  
Nov. 2010 Assumed CEO of Deloitte Touche Tohmatsu LLC (Japan)  
Assumed Global executive committee member of Deloitte Touche Tohmatsu Limited (Global)  
Dec. 2015 Retired Deloitte Touche Tohmatsu LLC  
Jan. 2016 Started Futomichi Amano CPA office (incumbent)  
Jun. 2017 Outside Director, the Company (incumbent)



**Susumu Yamauchi**

1) October 1, 1949; 2) 500 shares; 3) 2 years;  
4) Board of Directors meetings: 100% (13/13)  
Meetings of Audit Committee: 100% (18/18)

Apr. 1977 Assistant Professor, Faculty of Law, Seijo University  
Apr. 1988 Professor, Faculty of Law, Seijo University  
Apr. 1990 Professor, Faculty of Law, Hitotsubashi University  
Apr. 2004 Dean of Graduate School of Law & Dean of Faculty of Law, Hitotsubashi University  
Apr. 2005 Chairman, Society for the Study of Legal Culture  
Dec. 2006 Executive Vice President, Hitotsubashi University  
Dec. 2010 President, Hitotsubashi University  
May 2012 Member of the Roundtable for Human Resource Development through Industry-University Collaboration  
Dec. 2014 Emeritus Professor, Hitotsubashi University (incumbent)  
May 2015 Board member of the Hori Sciences and Arts Foundation (incumbent)  
Sep. 2015 Visiting Professor, Law School, Renmin University of China  
Development Advisory Committee Member, Law School, Renmin University of China (incumbent)  
Apr. 2017 Chairman, Textbook Approval and Research Council (incumbent)  
Jun. 2017 Outside Director, the Company (incumbent)  
Dec. 2018 Outside Director, Reading Skill Test Inc. (incumbent)

\*The number of Company shares held is as of March 31, 2019. The meeting attendance rate is for the year ended March 31, 2019.

## Executive Officer

### Shigekazu Takeuchi

President and Group CEO



### Yoshihiro Ashihara

Executive Officer (IVD)

Born on April 11, 1954

Apr. 1979 Joined Fujirebio, Inc.  
 Feb. 2001 General Manager, Frontier Research Division, Frontier Business Department and Fundamental Research Department, Fujirebio, Inc.  
 Mar. 2003 Director, Fujirebio, Inc.  
 Sep. 2008 President, Advanced Life Science Institute, Inc.  
 Jun. 2009 Managing Director, Fujirebio, Inc.  
 Jun. 2010 Executive Officer, the Company  
 Sep. 2010 Director, Innogenetics N.V. (current: Fujirebio Europe N.V.)  
 Jun. 2014 Representative Senior Managing Director, Fujirebio, Inc.  
 Apr. 2016 President & CEO, Fujirebio, Inc.  
 Apr. 2017 President & CEO, Fujirebio Holdings, Inc. (incumbent)  
 Jun. 2018 Director, Fujirebio, Inc. (incumbent), Executive Officer, the Company (incumbent)

### Naoki Kitamura

Executive Officer and CFO  
 Legal Affairs and Corporate Communications



### Shunichi Higashi

Executive Officer (CLT)

Born on January 12, 1957

Jan. 1982 Joined SRL, Inc.  
 Jul. 1999 Manager, Tachikawa Sales Office, SRL, Inc.  
 Aug. 2005 General Manager, Kyushu Sales Department, SRL, Inc.  
 Jun. 2008 General Manager, Shutoken Sales Department 1, SRL, Inc.  
 Jun. 2010 Director, Deputy Division Head, Clinical Laboratory Business Sales Division, SRL Inc.; President, WELL Clinics Inc.  
 Dec. 2011 President, Gunma Clinical Investigation Center (current: SRL Kitakanto Laboratory, Inc.)  
 Jun. 2013 President, Japan Clinical Laboratories, Inc.  
 Mar. 2016 President, Community Medicine Support Center, Inc.  
 Jan. 2017 President & CEO, SRL Inc. (incumbent)  
 Jun. 2018 Executive Officer, the Company (incumbent)



### Tadashi Hasegawa

Executive Officer  
 (Corporate Planning and Management)

Born on January 28, 1970

Apr. 1994 Joined the Tokyo Regional Taxation Bureau  
 Aug. 2000 Joined SRL, Inc.  
 Jul. 2006 Manager, Corporate Management Group, the Company  
 Jul. 2011 General Manager, Corporate Management Department, the Company  
 Jan. 2017 Division Head, Corporate Management Division, the Company  
 Jun. 2017 Director, SRL, Inc.  
 Oct. 2017 Director, Miraca America, Inc. (incumbent); Director, SRL (Hong Kong) Limited (incumbent)  
 Jan. 2018 Division Head, Corporate Planning & Management Division, the Company (incumbent)  
 Mar. 2018 Director, Division Head, Corporate Planning & Management Division, SRL, Inc. (incumbent)  
 Jun. 2018 Executive Officer, the Company (incumbent)



### Kazuya Omi

Executive Officer  
 (Research and Development)

Born on February 28, 1979

Apr. 2007 Joined Fujirebio, Inc.  
 Oct. 2009 Manager, Biotechnology Research Group, Fundamental Research Department, Fujirebio, Inc.  
 Nov. 2013 Joined Eli Lilly Japan K.K.  
 Apr. 2015 Joined the Company  
 Jan. 2017 General Manager, Research & Development Strategy Department, the Company (incumbent)  
 Jul. 2017 President, Miraca Research Institute G.K. (incumbent)  
 Dec. 2017 Division Head, Research and Development Division, SRL, Inc. (incumbent)  
 Apr. 2019 Division Head, Advanced Medical Solutions Business Development Division, the Company (incumbent)  
 Jun. 2019 Executive Officer, the Company (incumbent)



### Shigeto Ohtsuki

Executive Officer  
 (Human Resources)

Born on November 12, 1961

Apr. 1984 Joined Hitachi, Ltd.  
 Sep. 1991 Manager, Hitachi America, Ltd.  
 Jun. 1999 Manager, General Electric Japan, Ltd.  
 Jan. 2001 Corporate Officer, HR Administration Director, GE Fleet Services, Ltd.  
 Feb. 2003 Corporate Officer, HR Director, GE Yokogawa Medical Systems, Ltd.  
 Jan. 2005 HR General Manager, GE Healthcare Japan, Ltd.  
 Jun. 2008 Executive Officer, HR Director, Hewlett-Packard Japan, Ltd.  
 May 2010 HR Director, Hewlett-Packard Asia Pacific Enterprise Service  
 Apr. 2011 Corporate Officer, HR Director, Shiseido Company, Limited  
 Apr. 2015 Joined the Company, Officer  
 Jun. 2015 Executive Officer, the Company (incumbent)  
 Jun. 2016 Director, SRL, Inc.  
 Apr. 2019 President, Miraca Cast, Inc. (incumbent)



### Hiroaki Kimura

Executive Officer  
 (General Affairs  
 and Information Technology)

Born on June 25, 1961

Apr. 1984 Joined Fujirebio, Inc.  
 Jul. 2001 Manager, Corporate Financial Planning Group, Fujirebio, Inc.  
 Apr. 2003 General Manager, Corporate Planning Department, Fujirebio, Inc.  
 Apr. 2005 General Manager, Corporate Planning Department, General Manager, Strategy Planning Department, Fujirebio, Inc.  
 Apr. 2006 General Manager, Corporate Planning Department, the Company  
 Jun. 2009 Director, Fujirebio, Inc.  
 Jun. 2010 Director, Advanced Life Science Institute, Inc.; Director, Fujirebio Taiwan Inc.  
 Jul. 2011 General Manager, IR & Advertising Department General Manager, Business Strategy Department, the Company  
 Nov. 2011 Director, Innogenetics N.V. (current: Fujirebio Europe N.V.)  
 Jun. 2012 Executive Officer, the Company (incumbent)

## The Miraca Group's Corporate Governance as Seen by the Committee Chairs

As stated in the Miraca Group Corporate Governance Policy, the Company appoints outside directors regardless of gender, race, or nationality, from the perspectives of their: 1) capacity to manage based on knowledge and experience in wide ranging fields outside the scope of business experience gained within the Company, 2) due recognition of the role management should place in society, while not placing disproportionate emphasis on interests of management or certain stakeholders, and 3) ability to properly oversee the management in the execution of its duties.

A majority (five) of the seven directors elected at the 69th Ordinary General Meeting of Shareholders are independent outside directors and four have been reported as independent directors pursuant to the rules of the Tokyo Stock Exchange. They have varying backgrounds including experience working for other companies or as a certified public accountant, attorney-at-law, or in academia. They are

expected to carry out the supervision of management from an objective standpoint.

Outside directors are also appointed as the chairs of the Nominating, Compensation and Audit committees. For this report, we asked the chair of each committee about the status of the Group's corporate governance today and any challenges they may foresee.

Member Composition and Chair Attributes for Each Committee

	Total members	Inside directors	Outside directors	Chairman
Nominating Committee	3	1	2	Outside director
Compensation Committee	3	1	2	Outside director
Audit Committee	3	0	3	Outside director



### Contributing to the realization of our vision while ensuring impartiality and transparency

Ryoji Itoh  
Chairman of Nominating Committee

The Miraca Group was among the first companies in Japan to reinforce corporate governance, by adopting a "Company with Committees" Japanese governance system in 2005 (currently, "Company with a Nominating Committee, etc."). In terms of board management, we go beyond just having outside directors occupy a majority of the positions; we select candidates with wide ranging specialist knowledge and ensure board effectiveness so that board discussions on an array of topics fully incorporate outside views.

Our business operations directly affect the lives of all people, meaning even the slightest mistake cannot be tolerated. Our extreme focus on the frontlines of our businesses ensures mistake-free operations, which is

underpinned by our rigorous governance system that considers changes in the times. In a sense, governance is more than just a goal, it forms an integral part of our enduring mission.

The Nominating Committee is responsible for selecting candidates for director and executive officer and examining the Company's succession plan. Currently, we are moving ahead with the establishment of the Miraca Institute of Leadership (MIL) for grooming candidates for the next generation of management. Outside directors are also involved in this selection process. As chairman of the Nominating Committee, I hope to contribute to the realization of our future vision while ensuring impartiality and transparency.



### Supporting new growth under a culture where even people from outside the company can freely speak their mind

Miyuki Ishiguro  
Chairman of Compensation Committee

The Miraca Group gets the most out of its outside directors. In addition to people from various backgrounds, we have a corporate culture where even people from outside the company can freely speak their mind. For example, in the previous fiscal year (ended March 31, 2018), the board decided to sell a subsidiary following sizeable extraordinary losses, and this was brought to light by an outside director. Even for the subsequent business restructuring, impairment and divestment, we were able to move things forward in a manner where all involved were satisfied with the outcome by fully communicating with the business execution side.

The Company's executive compensation is a combination of monetary compensation and stock compensation. Each form of compensation has been

uniquely developed to include a fixed component and performance-linked component. Under this balanced compensation system, we emphasize maintaining a compensation level commensurate with the duties and responsibilities of each executive officer. This is also another result from a proposal from an outside director.

Currently, we are in the process of rebuilding our business model. Although profits will not materialize immediately due to the large number of upfront investments, such as the Akiruno Project, I believe we will begin a new growth stage once new businesses are up and running in two to three years' time. I ask that shareholders support this approach to growth with a medium- to long-term perspective.



### Reinforcing the supervision function of the Board of Directors with a third-party perspective

Futomichi Amano  
Chairman of Audit Committee

My impression in the two years since I was elected outside director is that the Miraca Group's governance has certainly improved, considering the evaluation of board effectiveness by a third party. The Company is committed to reinforcing governance in a practical manner, not just in form alone, while following Japan's Corporate Governance Code.

The Audit Committee is mindful of reinforcing supervision of the Board of Directors on the implementation side. In order to check whether important strategies and measures are being formulated and implemented, we do more than just receive reports from executive officers, we actively hold interviews with relevant parties

as needed. We also pay close attention to the defensive side as well, including internal control, compliance and information management. We take particular notice of the three defense lines of risk management, which involves whether frontline escalation processes, important head office cross functional processes, and internal audits are functioning.

I believe supervision functions include strong encouragement of management from the perspective of sustainable growth and increasing medium- to long-term value. I will continue to provide support while maintaining the independent views of a third party to realize our shared goals for the future as soon as possible.



## New Miraca Group CSR Committee Created to Coordinate CSR Activities

The Miraca Group announced an updated CSR philosophy and policy in April 2019 that clearly conveys our commitment to integrating efforts to address social issues through our corporate activities. The newly created Miraca Group CSR Committee comprises six subcommittees each dedicated to specific environmental and social fields.

### Our Approach to CSR

The Miraca Group Management Philosophy consists of three main declarations: Mission, Vision and Values. We believe we can fulfill our CSR through our business activities, which we base on our management philosophy. By means of this framework, we create strong relationships with a wide range of stakeholders, engaging in initiatives to solve social issues through our business activities.

 [The Miraca Group Management Philosophy](https://www.miraca.com/en/group/philosophy.html)  
<https://www.miraca.com/en/group/philosophy.html>

### CSR Materiality

In fiscal 2018, we have CSR issues that are material to our operations and which we believe the Miraca Group should prioritize addressing. By doing our part to help resolve these local and global social issues, the Group

can contribute to realizing a sustainable society and environment while also generating sustained growth for the Group.

### CSR Promotion Structure

The new Miraca Group CSR Committee, which is chaired by the Miraca Holdings CEO, discusses the Group's basic CSR policy and CSR action plans. The committee monitors the progress of the action plans at each Group company and also gathers and shares

information about the latest activities conducted by other companies. The committee also sets up subcommittees led by the Division Heads of related operations to execute the CSR action plan.



## Policy and Materiality of Environmental and Social Subcommittees



## Group CSR Policies (as of August 2019)

The environment and social subcommittees will set and promote the key risk indicators, activity content, targets, and other items based on each Group policy for the second half of fiscal 2019.

### Environmental Policy

The Miraca Group recognizes the connection between diverse business characteristics and the environment. We engage in environmental preservation, contributing to a sustainable society.

1. We strive for environmentally friendly business activities, to providing services and products to society that are friendly to both people and the environment.
2. We engage in energy and resource conservation, the proper control of chemicals, reduced waste, recycling, and protection of water resources, striving to prevent environmental pollution.
3. We comply with laws, regulations, and agreements on the environment. We also strive for ongoing improvements in our environmental management systems and environmental performance.
4. We communicate our environmental policies and other environmental initiatives to employees and all others involved in our business activities. We also disclose these policies and initiatives externally.

### Procurement Policy

The Miraca Group engages in fair, stable, and sustainable procurement in order to contribute to human health through the creation of new value. We value our relationship with suppliers, pursuing the following basic approach to procurement in establishing mutual trust.

1. We comply with the laws and social norms of every country in which we conduct business, striving to engage in procurement activities that consider respect for basic human rights, labor environments, occupational health and safety, child labor, and other related factors.
2. We provide opportunities for free and transparent procurement with suppliers around the world, working to improve our competitive capabilities through active due diligence, including procurement from new business partners.
3. We procure from excellent, highly trustworthy suppliers, selected based on a comprehensive list of factors including quality, price, delivery, technological capacity, CSR/EMS initiatives, business continuity, local procurement, and other factors.

### Human Rights Policy

The Miraca Group respects internationally recognized human rights. We pursue initiatives that reflect our belief in respecting the human rights of all people involved in our business and in taking responsibility to protect the rights of workers.

1. We respect human rights and do our utmost to avoid and reduce any negative impact on human rights in all processes related to group activities.
2. We never discriminate unfairly on the grounds of age, gender, sexual orientation, gender identity, origin, nationality, race, color of skin, presence or absence of disability, religion, or political beliefs.
3. We comply with labor laws and regulations related to employment, wages, and other matters related to working conditions in the countries in which we conduct business.
4. We forbid child labor, forced labor, or human trafficking of any type.
5. We will work to remedy the situation through appropriate internal and external procedures if it becomes clear that the Miraca Group has caused or contributed to a negative impact on human rights.
6. We provide appropriate education and enlightenment to ensure this policy is incorporated into all activities of the Miraca Group.

### Occupational Health and Safety Policy

To embody the corporate philosophy of the Miraca Group, we must provide employees with an environment in which they can participate in a healthy and active manner. We create work environments that incorporate considerations of labor, safety, and hygiene, resulting in workplaces in which our people can work comfortably and with peace of mind.

1. We comply with relevant laws and regulations, as well as internal rules, concerning occupational health and safety.
2. We have established a health and safety system to ensure a healthy working environment in which employees can work safely and securely.
3. We pursue measures against the risk of dangers and hazards, including disasters, accidents, and infectious diseases. We respond promptly to any occurrence, and we implement detailed measures to prevent recurrence.
4. We continue to enhance and strengthen workplace accident prevention education for employees to ensure compliance with the preceding policies.

### Philanthropy Policy

The Miraca Group promotes philanthropy that creates a healthy and prosperous society and goes beyond our business domain. We will effectively utilize available resources and serve as a member of the global community while continuously disclosing our outcomes quantitatively and qualitatively.

1. We aim to resolve social issues related to health, human resources, the environment, local communities and disasters, in collaboration with NPOs, patients associations and other organizations advancing innovative activities. We address care-related issues over the long term in particular.
2. We offer various support programs and seek to run them effectively so that the voluntary involvement of employees in philanthropic activities leads to their personal growth and sense of fulfillment and pride as a group employee.
3. We strive to create novel ideas that merge the knowledge and issue awareness gained through philanthropic activities and the technological expertise cultivated through our business, and to develop philanthropic programs that leverage the various skills and problem awareness of each employee, to continually redefine our corporate identity.

### Basic Policy on Business Partner Selection

The Miraca Group selects excellent business partners based on our procurement policy and through the following assumed conditions.

1. Compliance with laws, basic human rights, and corporate ethics in every country in which the entity conducts business activities
2. Stable, healthy business infrastructure
3. Quality, pricing, delivery are at appropriate levels and based on rational economics
4. Compliance with non-disclosure agreements
5. Ongoing activities that consider environmental preservation
6. Capable of uninterrupted delivery activities, even in emergency situations

### Diversity Policy

The Miraca Group promotes diversity to strengthen ongoing corporate growth and global competitiveness in a society of declining birthrates, aging populations, and rapid globalization. We give rise to innovation and create new value as each individual in our diverse base of human resources maximizes their skills, contributing to our corporate activities.

1. We create systems that provide career path support and reward employees according to their contributions to ensure every employee can express his or her full potential, regardless of personality or personal attributes.
2. We will provide an environment that hires, promotes to management, improves rates of return from childcare leave, and engages in other measures to encourage women to work longer careers within the Miraca Group to create a society in which women can express their individuality and demonstrate their abilities (promoting women's participation and advancement).
3. We engage in creating rewarding work for people with disabilities, actively hiring such individuals and providing a comfortable working environment that respects individuality.

### Health Declaration

As a corporation engaged in promoting the health of individuals, the Miraca Group believes that the most important way that it contributes to society for a wide-range of stakeholders is by supporting the mental and physical health of its employees and their families. The Group conducts various activities to preserve and promote health to help our employees and their families enjoy healthy, flourishing lives.

#### Key Measures

1. We offer comprehensive employee education and a health consultation office to support the mental health of employees in the four areas of prevention, reduction, early discovery, and prompt treatment.
2. We help employees maintain and improve their health with measures to increase the participation rates in health and stress-level checkups, non-smoking campaigns, and health awareness programs.
3. We support a healthy balance of work and personal life by supporting efforts to improve work efficiency, organize smooth work flow, and reduce overtime work as well as by encouraging employees to use planned leave programs and supporting childcare and nursing needs.

## The Miraca Group Engages in Group-wide Environmental Activities

The Miraca Group companies have each been conducting their own environmental activities, including both SRL and Fujirebio earning ISO 14001 certification. In April 2019, we created a dedicated Environmental Subcommittee of the newly established Group CSR Committee to oversee the Group's environmental activities. Comprised of the division heads of the Group's core companies, the subcommittee brings together and unifies the Group's wealth of experience in environmental action.

### Environmental Activities

#### Fiscal 2018 Environmental Performance and Status of Current Activities

The Miraca Group fully understands the importance of protecting and improving our natural environment and conducts various environmental activities based on the ISO 14001 accredited environmental management systems of the Group companies SRL and Fujirebio.

One of our key activities is to use electricity more efficiently and reduce our energy consumption, and we have set a target to cut the amount of electricity we use by 1% each year. In fiscal 2018, we reduced electricity consumption by approximately 2,250,000 kWh and overall energy consumption by a crude oil equivalent of

roughly 830 kL. These reductions enabled us to reduce carbon dioxide emissions by roughly 2,400 t-CO<sub>2</sub>.

We also have started construction of the New Central Laboratory that will substantially reduce our overall environmental impact and are in the process of reorganizing our Group logistics operations into a single separate company to improve the efficiency of our specimen delivery and logistics operations.

#### Main Environmental Activities in fiscal 2018

- Installed LED lighting
- Replaced equipment with energy-efficient models
- Converted to non-CFC and CFC-substitute freezers and cold storage facilities
- Improved the fuel efficiency of company vehicles

#### TOPIC Eco-friendly Driving

SRL is working to improve vehicle fuel efficiency to achieve the logistics and sales divisions common goal to improve fuel efficiency by 1% each year. We participate in the "Eco-Drive Activity Competition" organized by the Foundation for Promoting Personal Mobility and Ecological Transportation to help boost our drivers' fuel-efficient driving skills. In fiscal 2018 awards, SRL received an Outstanding Performance Award and



An electric car at SRL

Fujirebio received an Excellence Award. The Miraca Group will continue raising employee awareness of environmental issues related to all of our activities.

#### Vehicle Fuel Efficiency at SRL

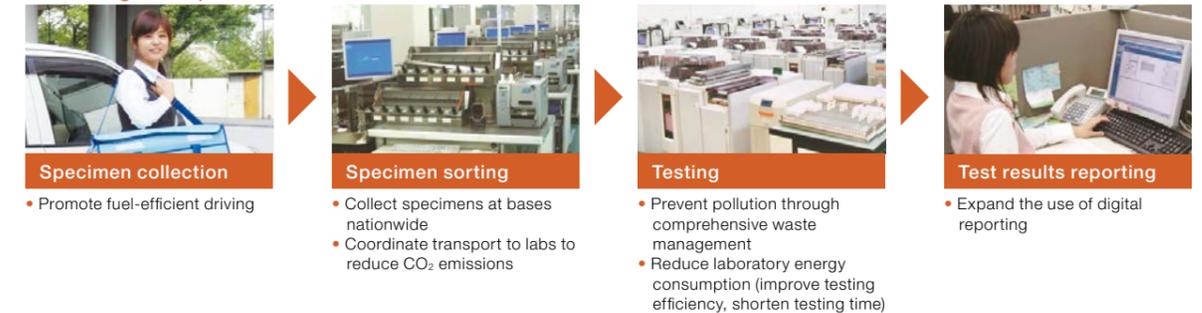
	FY2016	FY2017	FY2018
Fuel efficiency	16.0km/L	16.4km/L	16.8km/L
Year on year improvement	+1.9%	+2.5%	+2.4%
Assessment	Achieved	Achieved	Achieved

## Core Group Company Business Characteristics and Environmental Impact

### SRL

We take steps to monitor the overall greenhouse gas emissions of our business activities, encompassing the environmental impacts of each of our sites and their supply chains (material purchases, transport, testing, reporting, waste disposal, etc.), and endeavor to develop activities that preserve the environment. Some of the waste products from our businesses include infectious substances. We treat this with special care with sterilization and crushing processes inside our facilities and, to the extent possible, by having intermediate disposal facilities convert them to solid refuse paper & plastic fuel (RPF).

#### Minimizing the Impact from our Core Business Processes



#### Key Environmental Performance Results in fiscal 2018 (Year on year change)

**Energy**  
 Electricity consumption: -9.0%  
 Fuel consumption: -2.4%

**Greenhouse gas emissions**  
 Scope 1: -512 t-CO<sub>2</sub>  
 Scope 2: -1,379 t-CO<sub>2</sub>

#### Material Balance (fiscal 2018)

Input		Output	
Electricity	28,971,000 kWh	General waste	170 t
Municipal gas	845,000 m <sup>3</sup>	Industrial waste	1,326 t
LPG (propane gas)	976 kg	Specially controlled industrial waste	820 t
Gasoline	1,520 kL	CO <sub>2</sub> emissions	19,531 t-CO <sub>2</sub>
Kerosene	77 kL	Drainage amount	167,000 m <sup>3</sup>
Fuel oil	13 kL		
Water resource usage	168,000 m <sup>3</sup>		

### Fujirebio

Fujirebio's has over 1,700 units of its flagship LUMIPULSE instrument in operation around the world (as of March 31, 2019). The company considers the environmental performance of each of the operating processes through the whole lifecycle of its products. The company recycles all of the recyclable materials in its equipment products, which include steel and base materials.

#### Core Business Processes and Steps to Minimize Negative Impacts



#### Key Environmental Performance Results in fiscal 2018 (Year on year change)

**Energy**  
 Consumption: -1.3% (Energy: electricity, municipal gas, kerosene)

**Waste Products**  
 General waste: -48 tons  
 Industrial waste: +98 tons  
 (Industrial waste increased from laboratory layout changes and equipment replacement)

#### Material Balance (fiscal 2018)

Input		Output	
Electricity	11,938,000 kWh	General waste	69 t
Municipal gas	713,000 m <sup>3</sup>	Industrial waste	176 t
LPG (propane gas)	120 kg	Specially controlled industrial waste	20 t
Gasoline	177 kL	CO <sub>2</sub> emissions	7,752 t-CO <sub>2</sub>
Kerosene	98 kL	Drainage amount	35,000 m <sup>3</sup>
Fuel oil	0 kL		
Water resource usage	41,000 m <sup>3</sup>		



## Creating a Meaningful and Rewarding Work Environment

The Miraca Group seeks to create a corporate culture where all of its employees feel they are engaged in meaningful and rewarding work. We support the activities and growth aspirations and provide a comfortable work environment for our diverse workforce while also helping all personnel maintain a healthy work-life balance.

### Respecting Diversity

The Miraca Group seeks to maintain a diverse staff of people of any nationality, age, and gender that respects the personal values of each individual and embodies the Group's Management Philosophy. The number of different nationalities on our staff is increasing, and the ages of people on our staff range from the upper teens to late sixties. In recent years, the majority of our new hires, over 60%, have been women.

We offer systems and create an environment enabling different ways of working to promote a good work-life balance and support working women.

The Miraca Group is introducing a remote work system enabling videoconferences and external access to the intranet via company issued laptops and smartphones. The system will allow employees to continue their careers at different stages of life when they have other personal responsibilities such as childcare or nursing care. Our efforts with this and other programs were recognized with selection to the MSCI Japan Empowering Women Index (WIN) in June 2019.

#### Strong female presence in the testing labs

The Clinical Laboratory Testing business boasts a large number of women in its testing laboratories who are government-certified medical technologists. Female employees take the initiative to encourage and help other team members to take the difficult challenge to earn the certification and advance their careers.



Women at work in a testing lab

#### Special subsidiary providing employment opportunities for people with disabilities

The Miraca Group established the consolidated subsidiary, Miraca Cast on April 1, 2019, to expand the diversity of our workforce and provide employment opportunities to people with disabilities. On May 28, the company was certified as a special subsidiary under the Act on Employment Promotion of Persons with Disabilities. This certification will now allow us to broaden the scope of the company's business content and create more opportunities for people with disabilities.



Celebration at the founding of Miraca Cast

### Building Employee Skills and Putting People in Positions to Succeed

#### The Miraca Talent Review

The Miraca Group has been conducting the Miraca Talent Review every year since fiscal 2015. The review process entails discussing with each individual their growth and their aspirations for growth as an employee so we can match the right people to the right jobs. Identifying and nurturing talent and reviewing our status of our human resources helps with individual career planning for each employee, ability assessment, and individual development.



#### Strengthening Management

The Miraca Management Development Program (MMDP) is an annual training program for administrative managers to deepen understanding the Group's Management Philosophy. The program is designed to foster a management corps that demonstrates leadership with the aim of providing training to augment their management knowledge, mindset, and skills while deepening the common values of our corporate culture.



A group discussion at the MMDP

### Workstyle Reform

The Miraca Group is implementing management-led workstyle reform at all Group companies. The Group has launched measures including reorganizing the work content and duties at all work sites so employees are better able to leave their jobs at the appointed time and a work efficiency initiative to raise productivity. The reform initiative included 15 workshops at the four core companies including Miraca Holdings during fiscal

years 2017 and 2018. We have formulated improvement methods and tools to be used throughout the Group and share actual success stories at management meetings and via the Group email newsletter. These business reforms have enabled our employees to work more efficiently while maintaining the quality of work and have successfully reduced the average amount of overtime worked.



A workshop on business reform



## Our Approach to Contributing to Society

In 1981, the Miraca Group initiated an open symposium on medical issues geared for the general public, training and research grants for future medical technologists, as well as the predecessor to the local community project at the Hachioji Office. As we pursue our established programs and community initiatives, we began the Miraca Philanthropy in 2018 in conjunction with the Group's CSR initiatives. After a successful inaugural year, we will continuously refine our unique Miraca approach to facing the social issues of our times through the process of trial and error.

### Medicopia Educational Symposium

Fujirebio has been presenting the Medicopia Educational Symposium since 1981 to provide a forum for exchange between the clinical and preclinical medical fields. The annual event attracts some 1,000 participants from the medical and other fields to lectures and discussions covering a broad range of medical issues. The content of the symposium is also published in the academic journal *Medicopia*.



The 38th Medicopia Educational Symposium

### Charitable Trust Fund for the Medical Industry

For nearly 40 years, SRL and Fujirebio have been running the Charitable Trust Laboratory Medicine Research Foundation of Japan to support young researchers and contribute to advances in medicine and medical technology. Since 1981, the foundation has provided unconditional funds to a wide range of

hospitals and researchers with the aim of raising standards in the medical industry. The Koichiro Fujita Award and Nozomu Kosakai Award recognize people with long careers in the clinical testing industry. These activities promote healthcare locally in Japan and support global health.

#### Charitable Trust Fund Total Financial Assistance

Award category	Year started	Number of recipients	Amount awarded (¥ million)
Research subsidies	FY1981	306	220
Koichiro Fujita Award	FY2003	15	7
Nozomu Kosakai Award	FY1990	29	10



Fund recipient award ceremony in fiscal 2018

### Bone Marrow Donor Collaboration and Promotion at the Hachioji Summer Festival

SRL participates in bone marrow donor programs as a way to make the best use of the technology and expertise it has accumulated to contribute to a healthy and flourishing society. SRL provides blood collection equipment and conducts the testing for human leukocyte antigen (HLA) and infectious diseases. The company also participates in activities to help raise awareness about the donor program. Its Hachioji office operates a booth at the annual neighborhood summer festival to provide information to some 3,000 festivalgoers while also collecting money donations and recruiting donors for the Japan Marrow Donor Program.



The bone marrow information booth at the Hachioji summer festival

### Hosting Overseas Interns

SRL operates an intern program to share its testing technology with lab technicians and their supervisors from developing countries through the Japan International Cooperation Agency (JICA).



Interns from around the world at SRL

#### Employee Volunteer Activities in Fiscal 2018

##### Japan



Hair donation events for cancer and alopecia areata patients



Housekeeping for families of hospitalized pediatric patients



Events to raise awareness of rare diseases



Disaster response support in areas hit by torrential rains in Western Japan

##### Overseas



Autism Speaks Walk and matching employee donations (USA)



Philabundance Annual Holiday Food Drive (USA)



Donation to Think Pink through a company charity festival (Belgium)



Evening Session with Genetics organized by the Texas Children's Hospital (USA)



Further details about our philanthropy activities in fiscal 2018 are available at <https://www.miraca.com/en/csr/philanthropy/activity.html>

# Consolidated Management Indicators

(Numbers less than one million yen omitted)

## Financial Indicators

		FY2014	FY2015	FY2016	FY2017	FY2018
Net sales	(¥ million)	204,667	211,743	204,245	195,400	181,415
EBITDA*1	(¥ million)	42,255	41,044	41,181	27,287	24,353
Operating profit	(¥ million)	27,012	26,050	28,057	17,648	14,648
Ordinary profit	(¥ million)	26,566	23,782	26,385	16,567	11,524
Profit (loss) attributable to owners of parent	(¥ million)	16,002	-5,081	333	257	6,386
Total assets	(¥ million)	262,203	237,296	213,926	176,068	201,234
Net assets	(¥ million)	171,851	155,700	148,087	113,225	112,973
Net cash (debt)	(¥ million)	-861	9,445	29,247	16,144	-13,187
Cash flows from operating activities	(¥ million)	29,261	29,316	36,436	15,767	16,244
Cash flows from investing activities	(¥ million)	-27,874	-11,965	-8,599	-21,552	-34,902
Cash flows from financing activities	(¥ million)	-9,980	-12,115	-23,138	-9,635	31,973
Cash and cash equivalents at end of period	(¥ million)	27,288	31,745	35,547	20,444	33,688
Operating margin	(%)	13.2	12.3	13.7	9.0	8.1
ROE	(%)	9.7	-3.1	0.2	0.2	5.7
ROA	(%)	10.5	9.5	11.7	8.5	6.1
ROIC	(%)	7.9	7.9	9.5	7.2	6.3
Equity ratio	(%)	65.5	65.5	69.1	64.2	56.0
Basic earnings (loss) per share	(¥)	274.82	-89.21	5.84	4.51	111.94
Net assets per share	(¥)	3,016.78	2,727.81	2,592.04	1,979.78	1,980.27
Research & development expenses	(¥ million)	5,384	5,702	4,748	5,365	5,937
Capital expenditure	(¥ million)	14,916	12,117	9,017	26,221	17,768
Depreciation	(¥ million)	11,203	11,287	10,499	7,842	8,692
Dividend payout ratio	(%)	33.5	—	1,952.1	2,882.5	116.1
Dividends per share	(¥)	92	110	114	130	130
Number of shares issued	(Shares)	57,137,966	57,246,866	57,287,166	57,334,183	57,361,385
Number of treasury shares at end of period	(Shares)	248,069	250,435	251,376	253,080	404,381

\*1 EBITDA = Operating profit + Depreciation + Amortization of goodwill

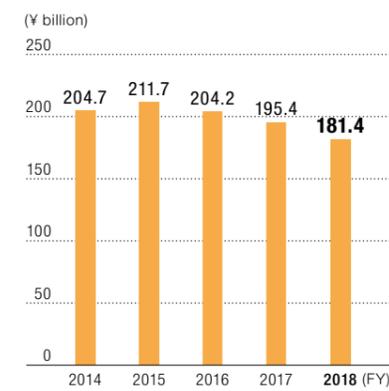
## Non-Financial Indicators

		FY2016	FY2017	FY2018	
Environment	Greenhouse gas (GHG) emissions (Scope 1, Scope 2 and Scope 3) *2	(t-CO <sub>2</sub> )	289,809	323,984	350,464
	Electricity usage *2	(1,000 kWh)	43,784	43,164	40,909
	Gasoline usage *2	(kL)	1,909	1,784	1,697
	Water resource usage *2	(1,000 m <sup>3</sup> )	223	217	209
Employees	Average age *3	(years old)	44.6	42.9	42.5
	Average years of employment (male/female) *3	(Years)	—	14.2/10.6	14.3/11.1
	Gender ratio *3	(male: female; %)	63:37	63:37	64:36
	Ratio of female managers *3	(%)	10.0	11.8	14.1
	Ratio of females in new graduate hires *3	(%)	60.3	57.6	62.4
	Ratio of employees returning to work after maternity or parental leave *3	(%)	100	100	90.6
	Average monthly overtime work *3	(hours)	—	21.5	19.0

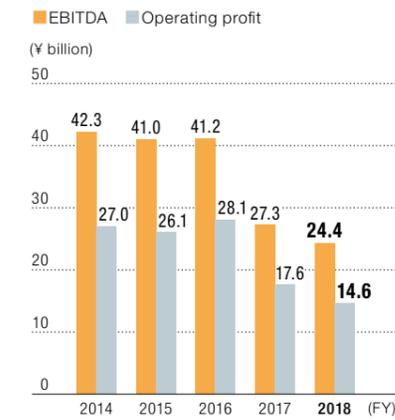
\*2 Total for Fujirebio and SRL

\*3 Permanent employees of Miraca Holdings, Fujirebio, and SRL

## Net sales

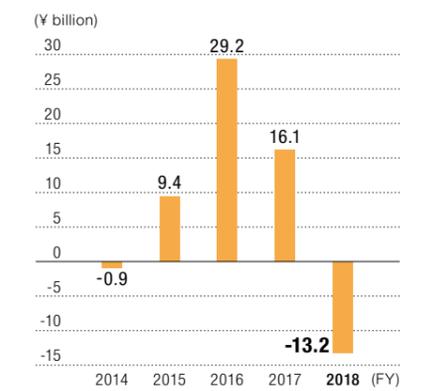


## EBITDA\* / Operating profit



\* EBITDA = Operating profit + Depreciation + Amortization of goodwill

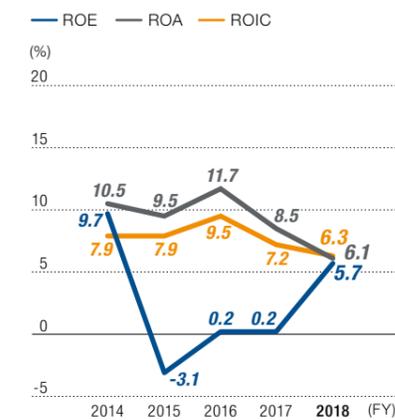
## Net cash (debt)



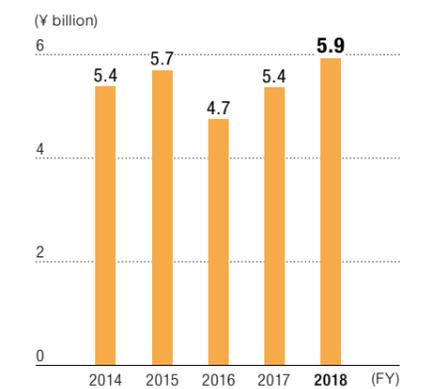
## Equity ratio



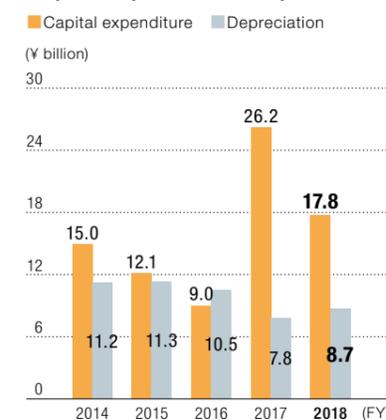
## ROE/ROA/ROIC



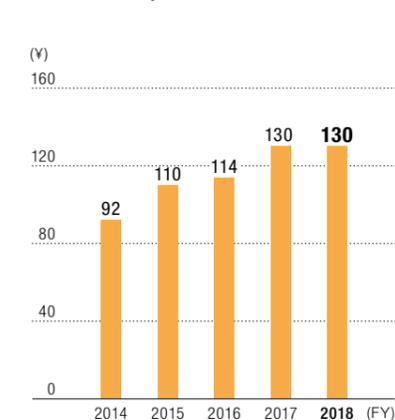
## Research & development expenses



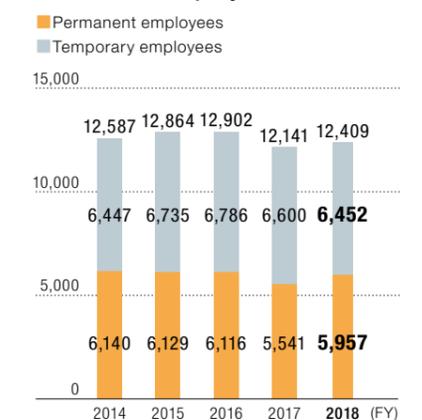
## Capital expenditure / Depreciation



## Dividends per share



## Number of employees



# Consolidated Financial Statements

(Numbers less than one million yen omitted)

## Consolidated Balance Sheets

(¥ million)

	As of March 31, 2018	As of March 31, 2019
<b>Assets</b>		
Current assets		
Cash and deposits	20,455	33,699
Notes and accounts receivable – trade	31,896	34,145
Lease investment assets	574	737
Merchandise and finished goods	4,881	5,302
Work in process	4,573	5,429
Raw materials and supplies	5,087	5,212
Other	8,025	5,250
Allowance for doubtful accounts	-160	-128
Total current assets	75,334	89,649
Non-current assets		
Property, plant and equipment		
Buildings and structures	48,794	53,146
Accumulated depreciation	-35,468	-36,432
Buildings and structures, net	13,326	16,714
Machinery, equipment and vehicles	14,663	14,875
Accumulated depreciation	-11,824	-11,716
Machinery, equipment and vehicles, net	2,838	3,159
Tools, furniture and fixtures	41,933	46,711
Accumulated depreciation	-29,353	-27,364
Tools, furniture and fixtures, net	12,579	19,346
Land	9,710	11,008
Leased assets	8,744	7,194
Accumulated depreciation	-5,501	-4,776
Leased assets, net	3,243	2,417
Construction in progress	7,108	2,107
Total property, plant and equipment	48,807	54,753
Intangible assets		
Goodwill	2,192	2,029
Customer-related intangible assets	1,249	1,105
Software	2,641	5,445
Leased assets	183	431
Other	5,100	6,086
Total intangible assets	11,368	15,098
Investments and other assets		
Investment securities	14,274	14,598
Deferred tax assets	17,766	14,251
Other	8,540	12,825
Allowance for doubtful accounts	-22	-22
Total investments and other assets	40,558	41,653
Total non-current assets	100,733	111,505
Deferred assets		
Bond issuance cost	—	80
Total deferred assets	—	80
<b>Total assets</b>	<b>176,068</b>	<b>201,234</b>

(¥ million)

	As of March 31, 2018	As of March 31, 2019
<b>Liabilities</b>		
Current liabilities		
Notes and accounts payable – trade	9,368	10,396
Electronically recorded obligations – operating	1,194	1,278
Short-term loans payable	—	10,000
Current portion of long-term loans payable	1,999	6,477
Lease obligations	644	816
Accounts payable – other	14,834	7,880
Income taxes payable	1,122	1,066
Provision for bonuses	5,237	6,054
Other	7,037	7,272
Total current liabilities	41,439	51,242
Non-current liabilities		
Bonds payable	—	15,000
Long-term loans payable	2,299	15,398
Lease obligations	3,160	2,225
Deferred tax liabilities	125	85
Retirement benefit liability	3,117	2,284
Asset retirement obligations	618	649
Provision for stocks payment	—	52
Provision for compensation loss	10,395	481
Other	1,686	840
Total non-current liabilities	21,403	37,018
<b>Total liabilities</b>	<b>62,842</b>	<b>88,261</b>
<b>Net assets</b>		
Shareholders' equity		
Capital stock	9,066	9,113
Capital surplus	24,788	24,835
Retained earnings	81,637	80,601
Treasury shares	-1,235	-1,631
Total shareholders' equity	114,257	112,920
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	310	345
Foreign currency translation adjustment	-756	-81
Remeasurements of defined benefit plans	-803	-393
Total accumulated other comprehensive income	-1,248	-129
Share acquisition rights	217	182
<b>Total net assets</b>	<b>113,225</b>	<b>112,973</b>
<b>Total liabilities and net assets</b>	<b>176,068</b>	<b>201,234</b>

## Consolidated Financial Statements

## Consolidated Statements of Income

(¥ million)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Net sales	195,400	181,415
Cost of sales	122,948	119,462
Gross profit	72,452	61,952
Selling, general and administrative expenses	54,804	47,303
Operating profit	17,648	14,648
Non-operating income		
Interest income	62	88
Dividend income	16	25
Dividend income of insurance	157	38
Gain on investments in capital	—	376
Rent income	43	59
Fiduciary obligation fee	82	51
Other	222	181
Total non-operating income	584	820
Non-operating expenses		
Interest expenses	334	195
Rent expenses	63	39
Share of loss of entities accounted for using equity method	1,091	3,471
Other	175	239
Total non-operating expenses	1,665	3,945
Ordinary profit	16,567	11,524
Extraordinary income		
Gain on sales of non-current assets	13	1
Gain on sales of investment securities	5	237
Gain on sales of shares of subsidiaries and associates	—	166
Gain on reversal of share acquisition rights	7	24
Reversal of provision for compensation loss	—	656
Gain on revision of retirement benefit plan	—	211
Reversal of foreign currency translation adjustment	27,467	—
Other	71	4
Total extraordinary income	27,565	1,302
Extraordinary losses		
Loss on retirement of non-current assets	148	157
Loss on valuation of investment securities	—	273
Impairment loss	28,076	—
Loss on sales of shares of subsidiaries and associates	12,875	—
Business structure improvement expenses	2,556	—
Provision for compensation loss	6,748	855
Other	811	164
Total extraordinary losses	51,216	1,451
Profit (loss) before income taxes	-7,083	11,375
Income taxes – current	1,639	1,590
Income taxes – deferred	-8,980	3,398
Total income taxes	-7,341	4,989
Profit	257	6,386
Profit attributable to owners of parent	257	6,386

## Consolidated Statements of Comprehensive Income

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Profit	257	6,386
Other comprehensive income		
Valuation difference on available-for-sale securities	32	34
Foreign currency translation adjustment	-27,894	674
Remeasurements of defined benefit plans, net of tax	-464	410
Total other comprehensive income	-28,326	1,118
Comprehensive income	-28,068	7,505
(Comprehensive income attributable to)		
Comprehensive income attributable to owners of parent	-28,068	7,505

## Consolidated Statements of Changes in Equity

Fiscal year ended March 31, 2018

	(¥ million)					Total shareholders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	
Balance at beginning of current period	8,962	24,684	88,341	-1,226	120,761	
Changes of items during period						
Issuance of new shares – exercise of share acquisition rights	77	77				154
Issuance of new shares – restricted stock	26	26				52
Dividends of surplus			-6,960			-6,960
Profit attributable to owners of parent			257			257
Purchase of treasury shares				-8		-8
Net changes of items other than shareholders' equity						
Total changes of items during period	103	103	-6,703	-8		-6,504
Balance at end of current period	9,066	24,788	81,637	-1,235	114,257	
	Accumulated other comprehensive income					
	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Share acquisition rights	Total net assets
Balance at beginning of current period	278	27,138	-339	27,077	248	148,087
Changes of items during period						
Issuance of new shares – exercise of share acquisition rights						154
Issuance of new shares – restricted stock						52
Dividends of surplus						-6,960
Profit attributable to owners of parent						257
Purchase of treasury shares						-8
Net changes of items other than shareholders' equity	32	-27,894	-464	-28,326	-30	-28,356
Total changes of items during period	32	-27,894	-464	-28,326	-30	-34,861
Balance at end of current period	310	-756	-803	-1,248	217	113,225

Fiscal year ended March 31, 2019

	(¥ million)					Total shareholders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	
Balance at beginning of current period	9,066	24,788	81,637	-1,235	114,257	
Changes of items during period						
Issuance of new shares – exercise of share acquisition rights	17	17				34
Issuance of new shares – restricted stock	30	30				60
Dividends of surplus			-7,422			-7,422
Profit attributable to owners of parent			6,386			6,386
Purchase of treasury shares				-395		-395
Net changes of items other than shareholders' equity						
Total changes of items during period	47	47	-1,035	-395		-1,336
Balance at end of current period	9,113	24,835	80,601	-1,631	112,920	
	Accumulated other comprehensive income					
	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Share acquisition rights	Total net assets
Balance at beginning of current period	310	-756	-803	-1,248	217	113,225
Changes of items during period						
Issuance of new shares – exercise of share acquisition rights						34
Issuance of new shares – restricted stock						60
Dividends of surplus						-7,422
Profit attributable to owners of parent						6,386
Purchase of treasury shares						-395
Net changes of items other than shareholders' equity	34	674	410	1,118	-34	1,084
Total changes of items during period	34	674	410	1,118	-34	-252
Balance at end of current period	345	-81	-393	-129	182	112,973

## Consolidated Statements of Cash Flows

(¥ million)

	Fiscal year ended March 31, 2018	Fiscal year ended March 31, 2019
Cash flows from operating activities		
Profit (loss) before income taxes	-7,083	11,375
Depreciation	7,842	8,692
Impairment loss	28,076	—
Gain on investments in capital	—	-376
Amortization of goodwill	1,796	1,012
Reversal of foreign currency translation adjustment	-27,467	—
Increase (decrease) in provision for bonuses	460	805
Increase (decrease) in provision for compensation loss	6,748	-6,879
Increase (decrease) in retirement benefit liability	-114	-408
Interest and dividend income	-78	-113
Interest expenses	334	195
Foreign exchange losses (gains)	-374	23
Share of loss (profit) of entities accounted for using equity method	1,091	3,471
Decrease (increase) in notes and accounts receivable – trade	-1,706	-2,460
Decrease (increase) in inventories	-894	-1,349
Increase (decrease) in notes and accounts payable – trade	333	995
Increase (decrease) in accrued consumption taxes	-1,111	538
Increase (decrease) in other non-current liabilities	-252	-872
Other, net	15,446	744
Subtotal	23,046	15,393
Interest and dividend income received	26	184
Interest expenses paid	-334	-150
Income taxes (paid) refund	-6,971	817
Net cash provided by (used in) operating activities	15,767	16,244
Cash flows from investing activities		
Purchase of property, plant and equipment	-14,757	-21,361
Purchase of intangible assets	-2,537	-5,348
Purchase of investment securities	-874	-3,656
Proceeds from sales of investment securities	7	970
Payments of loans receivable	-1	-1,000
Collection of loans receivable	4	1,888
Payments for acquisition of businesses	—	-517
Payments for guarantee deposits	-425	-7,701
Purchase of shares of subsidiaries	-1,035	-633
Payments for sales of shares of subsidiaries resulting in change in scope of consolidation	-1,242	—
Income from settlement	—	2,361
Other, net	-688	97
Net cash provided by (used in) investing activities	-21,552	-34,902
Cash flows from financing activities		
Proceeds from long-term loans payable	—	21,662
Repayments of long-term loans payable	-1,999	-4,104
Proceeds from issuance of bonds	—	15,000
Proceeds from issuance of common shares	141	18
Purchase of treasury shares	-8	-395
Cash dividends paid	-6,951	-7,413
Net increase (decrease) in short-term loans payable	—	8,538
Repayments of finance lease obligations	-750	-1,221
Other, net	-65	-109
Net cash provided by (used in) financing activities	-9,635	31,973
Effect of exchange rate change on cash and cash equivalents	317	-72
Net increase (decrease) in cash and cash equivalents	-15,102	13,243
Cash and cash equivalents at beginning of period	35,547	20,444
Cash and cash equivalents at end of period	20,444	33,688

## Investor Relations and Shareholder Relations Activities

The Company actively discloses corporate information including management strategy and financial condition to shareholders, investors and other stakeholders in a timely, impartial and accurate manner.

Through these disclosures, we strive to improve two-way communication with stakeholders as well as increase the transparency of management. At the same time, all of the Miraca Group's officers promote organized investor relations activities and engage in shareholder relations activities, as the key contributors of enhancing corporate value, under the leadership of top management, in order to earn credibility and an appropriate evaluation of the Company from stakeholders.

## Briefings for individual investors

Large briefings: 1 time

Small briefings: 2 times

## Briefings for institutional investors and analysts

Financial results presentations: 2 times (2Q and year-end)

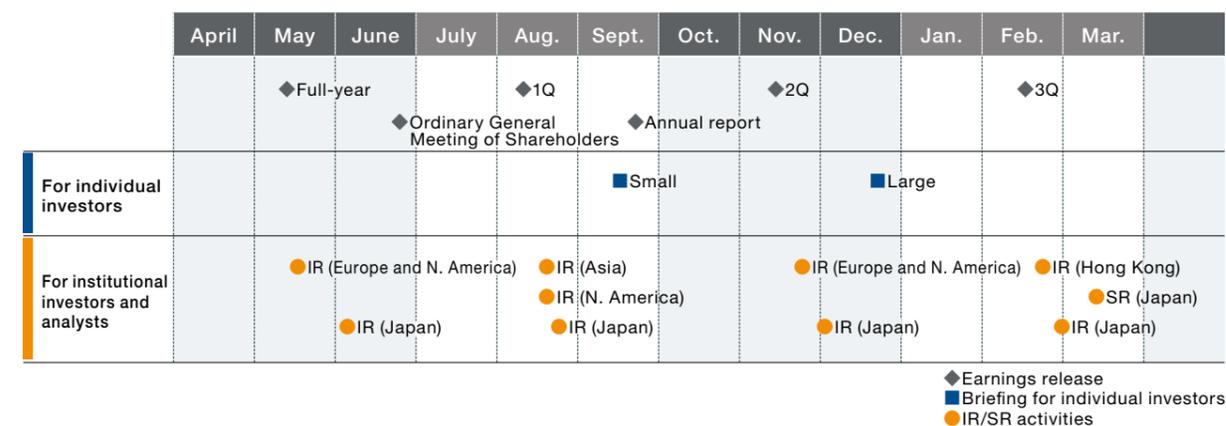
Conference calls: 2 times (1Q and 3Q)

Small meetings: 3 times

Facility tours (including for analysts): 10 times

One-on-one meetings with institutional investors and analysts: 224 times

## IR/SR activities in fiscal 2018



## Company Recognition

## MSCI Japan ESG Select Leaders Index



## MSCI Japan Empowering Women Index (WIN)



The inclusion of Miraca Holdings in MSCI indexes as well as the use of the MSCI logo, trademark, service mark and index names on this page does not constitute an endorsement, recommendation or promotion of Miraca Holdings by MSCI or its affiliates. MSCI indexes are the exclusive property of MSCI and the name and logo of MSCI and its indexes represent the trademark or service mark of MSCI or its affiliates.

## Nikko Investor Relations Website Ranking

The Company's website was selected as one of the excellent site (Grade AA) in the All Japanese Listed Companies' Website Ranking in 2018 by Nikko Investor Relations Co., Ltd.



# Main Group Companies and Bases (As of June 30, 2019)



## Japan

1 Miraca Holdings Inc.



Miraca Holdings (Shinjuku Mitsui Building)

- Fujirebio Holdings, Inc.
- Fujirebio, Inc.
- Advanced Life Science Institute, Inc.
- Fujirebio Diagnostics Japan, Inc.



Fujirebio Hachioji facility

- SRL, Inc.
- Japan Clinical Laboratories, Inc.
- HOKUSHIN Clinical Laboratory, Inc.
- SRL Kitakanto Laboratory, Inc.
- SRL Medisearch, Inc.
- SRL International, Inc.
- Clinical Network G.K.
- KBBM, Inc.
- SRL & Shizuoka Cancer Center Collaborative Laboratories, Inc.
- MSW Co., Ltd.



SRL Hachioji Laboratory

■ NIHON STERY CO., LTD.



NIHON STERY Tokyo Center

- Miraca Vitas, Inc.
- Care'x, Inc.
- Selmesta CO., LTD.
- SRL Wellness Promotion Inc.

- Miraca Research Institute G.K.
- Medicofrontier G.K.
- Miraca Cast, Inc.

## Americas

- 2 Fujirebio Diagnostics, Inc. (US)
- 2 Fujirebio US, Inc. (US)
- 3 Miraca America, Inc. (US)
- 3 Baylor Miraca Genetics Laboratories, LLC (US)
- 4 Fujirebio Diagnostics do Brasil Ltda (Brazil)



Fujirebio Diagnostics, Inc.

## Europe

- 5 Fujirebio Europe N.V. (Belgium)
- 6 Fujirebio Diagnostics AB (Sweden)
- 7 Fujirebio Italia S.r.L. (Italy)
- 8 Fujirebio Germany GmbH (Germany)
- 9 Fujirebio Iberia SL (Spain)
- 10 Fujirebio France SARL (France)



Fujirebio Europe N.V.



Fujirebio Diagnostics AB

## Asia

- 11 Fujirebio Taiwan Inc. (Taiwan)
- 12 SRL (Hong Kong) Limited (China)
- 13 Ping An SRL Medical Laboratories (China)
- 14 CanAg Diagnostics (Beijing) Co.,Ltd. (China)
- 15 Fujirebio India Private Limited (India)
- 16 Fujirebio Asia Pacific Pte.Ltd. (Singapore)

- Clinical Laboratory Testing
- In Vitro Diagnostics
- Sterilization and Related Services
- Emerging New Businesses
- Company wide (all segments)

# Corporate Overview and Investor Information (As of March 31, 2019)

## Corporate Profile

### Corporate Name

Miraca Holdings Inc.

### Headquarters

Shinjuku Mitsui Building  
2-1-1 Nishishinjuku, Shinjuku-ku, Tokyo 163-0408  
Tel: +81-3-5909-3335

### Director, President and Group CEO

Shigekazu Takeuchi

### Established

December 18, 1950  
(Corporate name changed from Fujirebio, Inc. and transition to a holding company structure through a corporate split on July 1, 2005)

### Capital stock

9,113 million yen

### Employees (Consolidated)

5,957

### Management Structure

"Company with committees" Japanese corporate governance system

### Main Subsidiaries

SRL, Inc., Fujirebio, Inc. and NIHON STERY Co., Ltd.

## Major Shareholders

Name of shareholders	Number of shares held	Shareholding ratio (%)
SSBTC CLIENT OMNIBUS ACCOUNT	6,325,965	11.08
The Master Trust Bank of Japan, Ltd. (Trust Account)	4,452,000	7.80
Japan Trustee Services Bank, Ltd. (Trust Account)	4,070,100	7.13
Mizuho Bank, Ltd.	2,132,155	3.73
The Dai-ichi Life Insurance Company, Limited	2,000,737	3.50
JP Morgan Chase Bank 385632	1,616,096	2.83
Nippon Life Insurance Company, Ltd.	1,538,673	2.69
State Street Client Omnibus Account OM44	1,528,500	2.68
Nothern Trust Co. (AVFC) RE HSD00	1,403,300	2.46
Meiji Yasuda Life Insurance Company	1,272,200	2.23

Notes: 1. The Company holds 255,181 shares of treasury stock, which is excluded from the major shareholders listed above. Furthermore, treasury stock does not include the 149,200 shares held in the Board Incentive Plan (BIP) trust under the trust-type share-based compensation scheme.  
2. Shares owned by The Master Trust Bank of Japan, Ltd. and by Japan Trustee Services Bank, Ltd. are held at their trust accounts.  
3. Shares owned by Mizuho Bank, Ltd. include 2,131.5 thousand shares being held as trust assets of Retirement Benefits Trust Accounts of Mizuho Bank, Ltd. (shareholding ratio of 3.73%)

## Ratings Information (As of September 30, 2019)

Ratings Agency	Rating
Rating and Investment Information Center (R&I)	A (Stable)

Notes: 1. "LUMIPULSE" and "iTACT" are registered trademarks of Fujirebio Inc. in Japan and in other countries.  
2. "PLANET NEXT" and "SIRIUS-NEXT" are registered trademarks of SRL, Inc. and its subsidiary in Japan.  
3. "star-Q" is a trademark of Care'x, Inc.

## Share Information

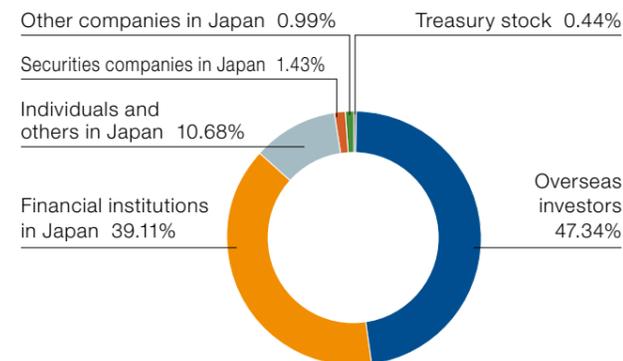
Number of shares authorized: 200,000,000

Number of shares issued and outstanding: 57,361,385

One share unit: 100

Number of shareholders: 8,160

## Shareholders Based on the Shareholding Percentage



# Glossary

## Healthcare system-related

### Medical fees (in Japan)

Medical fees refer to fees calculated as compensation for medical services received under insured medical care. It includes technical fees, drug costs, testing costs, and other expenses that are compensation for medical services administered by physicians, nurses, or other healthcare professionals, and is calculated based on medical fee point tables (which are revised once every two years). With insured medical care, patients are responsible for a portion of the amount of medical fees (10–30%) with the rest paid by public medical insurance (patients pay the full amount of medical expenses for elective treatments not covered by insurance).

### Primary care physician system

This system provides readily accessible, reliable physicians with

whom patients can consult concerning any health-related matter and who will offer referrals to specialized medical institutions when necessary. The system divides the roles of the medical institutions with the initial local physician visited by the patient serving as the primary care physician.

### Community-based integrated care systems

This system provides comprehensive support and services in local areas so elderly individuals can continue living the lifestyle they are used to as long as possible where they feel the most comfortable. Cities nationwide are preparing these systems with the aim of having the infrastructure ready by the year 2025 when the first wave of baby boomers will all be 75 or older.

## Testing, business/product-related

### Clinical testing

Clinical testing is divided into physiological testing and laboratory testing. Physiological testing involves direct contact with the patient, such as ultrasounds or electrocardiograms. Laboratory testing is performed on samples obtained from a patient, such as blood or urine.

### General tests

General tests mainly consist of items tested in physical examinations and other general tests (example: blood sugar, neutral lipids, red blood cell count, etc.).

### Esoteric tests

Representative test items include gene-related factors and chromosomes. In many cases these tests require sophisticated technology or equipment and even large hospitals frequently outsource esoteric testing to commercial laboratories like the Miraca Group.

### Off-site testing business

A business in which specimens from a hospital or clinic are sent to the Miraca Group laboratory and the results are returned after testing.

### In-hospital testing business

A business in which the Miraca Group operates a testing laboratory within a hospital. There are two types: a Branch type where we handle all aspects of the operation, including dispatching personnel, and a Facility Management System (FMS) type where we provide the equipment and testing reagents.

### Tumor markers (cancer markers)

Tumor markers are substances in blood that increase as a cancer progresses. These substances are measured and the results are used to confirm whether or not a cancer has relapsed or for medical treatment follow-ups, or other treatment.

### Companion diagnostics

Companion diagnostics help determine if a patient would effectively respond or have side effects from a particular drug or treatment. This helps identify proper dosages and effective treatments only for patients that would have the intended response. At the clinical level, companion diagnostics enable the most effective clinical treatments and can avoid ineffective treatments, while at the drug development level it can reduce risk, lower cost, and shorten development periods.

### LUMIPULSE®

- Fujirebio's flagship product, LUMIPULSE is a fully automated immunoassay system employing Chemiluminescence Enzyme Immunoassay (CLEIA) techniques.
- Since it is sold as a set that includes testing instruments and specialized reagents, the continued use of these specialized reagents supports steady earnings.

### LUMIPULSE® L2400

This is the LUMIPULSE Series immunoassay system with the largest testing capacity, up to 240 tests per hour.

### New Central Laboratory (Akiruno Project)

A project to design and construct a new testing laboratory capable of performing mass processing and improving efficiency through automation. The concept was launched in 2017.

### Contract Research Organization (CRO)

A CRO is an institution that companies, medical institutions, and government agencies contract to perform or provide personnel for clinical development or clinical testing (clinical trials) of pharmaceuticals, medical equipment, and items like food products (for specified health use) and cosmetics.

## Financial indicators

### EBITDA

- EBITDA = Operating profit + Depreciation + Amortization of goodwill

### ROE (return on equity)

- ROE is an indicator of how much profit a company has generated versus its equity.
- ROE = Profit ÷ Yearly average of equity

### ROIC (return on invested capital)

- ROIC is an indicator of how much profit a company has generated using capital invested for business activities.
- ROIC = NOPAT (Operating profit – Estimated effective income tax) ÷ Invested capital [Yearly average of (Net assets + Interest-bearing liabilities (including lease obligations) + Other non-current liabilities)]



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